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PUBLIC HEALTH SERVICE  
FOOD AND DRUG ADMINISTRATION

OBSTETRICS AND GYNECOLOGY DEVICES PANEL  
FIFTY-EIGHTH MEETING

VOLUME II

Tuesday, October 7, 1997

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P A R T I C I P A N T SCommittee Members:

Gary Eglinton, M.D., Chairman

Jorge Blanco, M.D.

Donald Chatman, M.D.

Michael Diamond, M.D.

Thomas Downs, M.D.

Washington Hill, M.D.

Michael Neumann, M.D., Ph.D.

Johanna Perlmutter, M.D.

Consumer Representative:

Diony Young

Industry Representative:

Cindy Domecus, R.A.C.

Liaison Member:

Lillian Yin, Ph.D. Director, Division of  
Reproductive, Abdominal, ENT and Radiological  
Devices, CDRH, FDA.

FDA Staff:

Elisa Harvey, D.V.M., Ph.D., Executive Secretary

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1 DR. CHATMAN: I'm Donald Chatman in private  
2 practice in Chicago at Northwestern and Michael Reese  
3 Hospital.

4 DR. DIAMOND: I'm Michael Diamond. I'm director  
5 of the Division of Reproduction Endocrinology and  
6 Infertility at Wayne State University in Detroit, Michigan.

7 DR. DOWNS: I'm Tom Downs, professor of biometry  
8 at the University of Texas School of Public Health in  
9 Houston.

10 MS. DOMECUS: Cindy Domecus, senior vice president  
11 of clinical research, regulatory affairs and quality  
12 assurance for Conceptus, and I'm the industry rep. on the  
13 panel.

14 DR. YIN: Lillian Yin. I'm the director, Division  
15 of Reproductive, Abdominal, ENT and Radiological Devices,  
16 CDRH, FDA.

17 MS. YOUNG: I'm Diony Young. I'm editor of the  
18 Journal of Birth and I'm the consumer representative on the  
19 panel. I'm from Geneseo, New York.

20 DR. PERLMUTTER: I'm Johanna Perlmutter. I'm an  
21 obstetrician-gynecologist at Beth Israel Hospital in Boston.

22 DR. NEUMANN: I'm Mike Neumann. I'm from Case  
23 Western Reserve University in Cleveland, Ohio in the  
24 Department of Obstetrics and Gynecology and the Department

1 of Biomedical Engineering.

2 DR. HILL: I'm Washington Hill, director of  
3 maternal fetal medicine in the Perinatal Center at Sarasota  
4 Memorial Hospital in Sarasota, Florida.

5 DR. EGLINTON: Gary Eglinton, director of maternal  
6 fetal medicine, Georgetown University.

7 DR. HARVEY: Elisa Harvey, executive secretary for  
8 the Obstetrics and Gynecology Devices Panel.

9 DR. EGLINTON: The FDA press contact for today's  
10 meeting is Lillian Yin.

11 We do have a full agenda. Please keep your  
12 comments brief and concise and to the point. Again, please  
13 don't take over the proceedings by force, please.

14 Elisa?

15 DR. ELSA HARVEY: I'd like to note for the record  
16 the appointment of several temporary voting members to the  
17 panel today. Pursuant to the authority granted under the  
18 Medical Devices Advisory Committee Charter dated October 27,  
19 1990 and amended April 20, 1995, I appoint the following  
20 people as voting members of the Obstetrics and Gynecology  
21 Devices Panel for the duration of this panel meeting on  
22 October 6 and 7, 1997: Dr. Donald Chatman, Dr. Thomas  
23 Downs, Dr. Washington Hill, Dr. Michael Neumann and Dr.  
24 Johanna Perlmutter.

1                   For the record, these people are special  
2 government employees and are consultants to this panel.  
3 They've undergone the customary conflict of interest review  
4 and they have reviewed the material to be considered at the  
5 meeting. It's signed by Dr. Bruce Burlington, center  
6 director.

7                   I'd like to also read a conflict of interest  
8 statement for today's meeting. The following announcement  
9 addresses conflict of interest issues associated with this  
10 meeting and is made part of the record to preclude even the  
11 appearance of an impropriety.

12                   To determine if any conflict existed the agency  
13 reviewed the submitted agenda and all financial interests  
14 reported by the committee participants. The conflict of  
15 interest statutes prohibit special government employees from  
16 participating in matters that could affect their or their  
17 employers' financial interest. However, the agency has  
18 determined that participation of certain members and  
19 consultants, the need for whose services outweighs the  
20 potential conflict of interest involved, is in the best  
21 interest of the government.

22                   We would like to note for the record that the  
23 agency took into consideration matters regarding Drs.  
24 Michael Diamond, Michael Neumann and Washington Hill. Dr.

1 Diamond reported that he attended a journal club regarding  
2 home uterine activity monitors which was sponsored by a firm  
3 at issue. Since this event was general in nature and he did  
4 not receive any fees, the agency has determined that he may  
5 participate fully in today's discussion.

6 Dr. Neumann reported a relationship with the firm  
7 at issue on matters not related to what is being discussed  
8 in this meeting. Since this matter is unrelated to the  
9 specific issues before the panel, the agency has determined  
10 that he may participate fully in the panel's deliberations.

11 Dr. Hill reports a recent speaking engagement  
12 funded by a firm relative to today's proceedings. However,  
13 this was on matters unrelated to the topic before the panel  
14 today. Since this matter is unrelated to the specific  
15 issues before the panel, the agency has determined that he  
16 also may participate fully in the panel's deliberations.

17 In the event that the discussions involve any  
18 other products or firms not already on the agenda for which  
19 an FDA participant has a financial interest, the participant  
20 should excuse themselves from such involvement and their  
21 exclusion will be noted for the record.

22 With regard to all other participants, we ask, in  
23 the interest of fairness, that all persons making statements  
24 or presentations disclose any current or previous financial

1 involvement with any firm whose products they may wish to  
2 comment upon.

3 I'd also like to note that transcripts and videos  
4 are available. The information is out front on the desk if  
5 you're interested.

6 Any presenters to the panel who have not already  
7 done so should provide FDA with a copy of their remarks.  
8 Mike Kuchinski, could you stand? He'll take your comments  
9 for you.

10 Just a couple of quick notes before we start. If  
11 the panel members could please fill out their lunch menus  
12 and pass them down, we'll collect those at the break and  
13 give those to the lunch person.

14 The panel also should note that there's an  
15 additional reference that's just been added to their "day  
16 of" folder. It's a reference by Corwin, et al, 1996. It's  
17 not listed on your panel contents.

18 Lastly, clean up after yourselves today. Pick up  
19 your trash and cups so that other people don't have to do it  
20 for you. Thanks.

21 DR. EGLINTON: Now Mr. Colin Pollard, chief, Ob-  
22 Gyn Devices Branch for introduction and general updates.

23 REPORT OF COLIN POLLARD

24 MR. POLLARD: Thank you, Dr. Eglinton. Good

1 morning, members of the panel, distinguished audience.

2           Today we're going to be looking at a petition for  
3 reclassification of home uterine activity monitors and I  
4 would like to go over with you some of the regulatory  
5 background that precedes reaching this point, as well as  
6 provide a few definitions to look at this petition in the  
7 appropriate regulatory framework.

8           I also want to thank members of the panel. We did  
9 our very best to try to bring back some of the panel members  
10 who helped us in past panel meetings--Dr. Perlmutter, Dr.  
11 Hill, Dr. Downs, Dr. Eglinton, of course. We wanted to make  
12 sure that we did our best to bring some of that  
13 institutional history of the panel deliberations to this  
14 meeting, as well.

15           Very briefly, the regulatory history for home  
16 uterine activity monitors starts with the Tokodynamometer.  
17 This was a pre-amendments device that was used in the clinic  
18 or hospital to measure uterine contractions abdominally.  
19 When this device was reconfigured in the early '80s to  
20 permit at-home use we looked at that new device and, in  
21 particular, what was carried with that new device was  
22 essentially a new claim for early detection of preterm  
23 labor, and determined that that constituted a new intended  
24 use.

1           From a regulatory point of view, what that did was  
2 lead to a not substantial equivalence determination and move  
3 that product out of Class II into Class III, requiring  
4 premarket approval application, with the purpose of showing  
5 safety and effectiveness for that new intended use.

6           Early on, when we looked at premarket approval  
7 applications for that new intended use. FDA asked  
8 manufacturers for evidence that home uterine activity  
9 monitors reduced preterm births. As the former members of  
10 the panel recall, this led to the review of a number of  
11 studies and also led to the real question of whether that  
12 was a legitimate, from a regulatory point of view, outcome  
13 measure for this kind of device.

14           This burden of proof was challenged to FDA and  
15 essentially to the highest levels of FDA and, in 1989, we  
16 changed our evidence requirement. In particular, we  
17 determined that a PMA for a monitoring device, for a home  
18 uterine activity monitoring device, does not need to show  
19 that the device results in reduced preterm births. Instead,  
20 manufacturers would be asked to show that this device led to  
21 earlier detection.

22           And in this context the panel, in an early PMA in  
23 1989 and 1990, looked at a device, the Genesis home uterine  
24 activity monitor, and looked specifically at cervical

1 dilation at the time of preterm labor diagnosis as a  
2 clinically reasonable endpoint for early detection.

3           In that first PMA, which was supported by a study  
4 conducted by Mou, et al, the sponsor showed that use of the  
5 monitor led to a smaller cervical dilation at the time a  
6 woman presented in preterm labor. And the first PMA was  
7 approved later in 1990 with that limited indication for use.

8           In the ensuing years there have been three  
9 additional panel meetings--1993, 1994 and 1995--during which  
10 FDA went back to the panel for additional clarification of  
11 using that clinical study benchmark, namely the study by  
12 Mou, et al, in terms of interpreting the results and in  
13 terms of its implications, as well as reaffirmation of the  
14 panel conclusions from the actually two 1990 panel meetings.

15           FDA approved two more PMAs for home uterine  
16 activity monitoring devices and each PMA was based on a  
17 study like the Mou, et al, study and all three of those  
18 studies showed, when comparing monitored women to  
19 unmonitored women, about a 1 centimeter difference in  
20 cervical dilation at the time the woman presented in preterm  
21 labor, and the panel said that this was a clinically  
22 significant result.

23           The current status of home uterine activity  
24 monitors is that they are still in Class III and there are

1 three approved PMAs based on this study design and limited  
2 indication.

3           What the petition essentially brings before the  
4 panel is an opportunity to look at the data that's available  
5 on home uterine activity monitors and the petition asks to  
6 reclassify that product from Class III into Class II.

7           Very briefly, what does this mean? It means that  
8 first of all, a 510(k) instead of a PMA would be needed to  
9 reach the market. And, in particular, new manufacturers  
10 would no longer be required to show that home uterine  
11 activity monitors lead to early detection of preterm labor.  
12 Rather, they would need to show that they're substantially  
13 equivalent to home uterine activity monitors on the market,  
14 the very first predicate device of that nature being the one  
15 that's the subject of this petition.

16           FDA would then rely on special controls, and I  
17 will get into that in a minute, to ensure the safety and  
18 effectiveness of the device. And special controls are a  
19 variety of regulatory tools that we can use to make sure the  
20 device is safe and effect.

21           If the device is not reclassified, if the products  
22 remain in Class III, then new manufacturers would still be  
23 required to repeat a clinical study like the one by Mou, et  
24 al.

1                   Petition for reclassification, like  
2 classifications themselves and like PMAs, must be based on  
3 valid scientific evidence. In particular, we like seeing  
4 well controlled studies, although valid scientific evidence  
5 also includes partially controlled studies, studies in  
6 objective trials without matched controls, well documented  
7 case histories and reports of significant human history.

8                   When we say safety, this is defined in the Code of  
9 Federal Regulations as when the probable benefits outweigh  
10 the probable risks when the device is used in accordance  
11 with its labeling.

12                   Effectiveness means when the device is shown to  
13 produce a clinically significant result, again, when it is  
14 used in accordance with its labeling. And I highlight when  
15 it's used in accordance with its labeling because, just to  
16 remind you about the three studies that supported PMA  
17 approvals, these were showing that the monitor was used as a  
18 sole means of detecting preterm labor, as opposed to some of  
19 the other studies that you've looked at, which show the  
20 monitor in conjunction with daily nursing contact regimens.

21                   And the indication for use, just to highlight real  
22 briefly, with those PMAs, as with the petition for  
23 reclassification, is the limited indication for use, early  
24 detection of preterm labor, as evidenced by cervical

1 dilation at the time of preterm labor diagnosis for women  
2 with a history of previous preterm birth. And I highlight  
3 that the claim is not a reduction in preterm births and that  
4 FDA is not requiring manufacturers to show that these  
5 devices lead to a reduction in preterm births.

6 I'd like to go over the requirements for Class I  
7 general controls and Class II special controls. General  
8 controls which apply to all devices include registration  
9 listing and 510(k) premarket notification, certain records  
10 and reports, quality systems, including design controls,  
11 restricted devices. We have regulations relating to  
12 adulteration, misbranding and banning and there are also  
13 notification and other remedies that apply across the board.

14 Class II special controls are used when Class I  
15 general controls are not considered sufficient to ensure  
16 safety and effectiveness of a device. These can ensure  
17 promulgated performance standards, postmarket surveillance,  
18 user information checklists, patient registries, guidelines,  
19 and these guidelines could apply to a 510(k) submission, and  
20 other appropriate actions, including voluntary standards,  
21 user information checklists, patient information education.

22 I'd also like to highlight a number of other  
23 monitoring devices used across the board that the center  
24 regulates and point out that right now we regulate all of

1 these devices as Class II with special controls. These  
2 include electronic fetal monitors, cardiac and ECG monitors,  
3 cutaneous O2 and pCO2 monitors, pulse oximeters and infant  
4 apnea monitors, which also are used at home. In each of  
5 these cases, FDA uses Class II special controls to ensure  
6 the safety and effectiveness of these devices.

7 I've asked Dr. Sandy Weininger later this morning  
8 to go over the special controls. In particular there is a  
9 separate volume of the petition for reclassification, which  
10 spells out in great detail the kinds of testing that the  
11 petitioner did on its home uterine activity monitor that are  
12 in line with the kinds of special controls that we would  
13 generally expect to see.

14 Dr. Weininger has been asked to discuss  
15 specifically which special controls, including focussed  
16 clinical studies and voluntary industry standards, are  
17 appropriate for electronic monitors and what these standards  
18 can ensure in terms of safety and effectiveness from an  
19 engineering perspective. He will also comment on how they  
20 are used as special controls for other types of monitors,  
21 like the ones you see up on the overhead today.

22 The main task that the panel will have to complete  
23 will be the completion of a questionnaire, a copy of which  
24 is in each of your folders and which the petitioner has also

1 completed. It looks like this. It says "Classification  
2 Questionnaire" but, in fact, it is both a classification and  
3 a reclassification questionnaire. And we would ask the  
4 panel to go through each of those questions individually.  
5 Obviously some of them are not as relevant to home uterine  
6 activity monitors as others.

7           We would ask you to consider all the information  
8 you hear today that's presented in the petitio, as well as  
9 any other information that you may bring as a matter of your  
10 expertise.

11           The classification questionnaire is also  
12 accompanied by a supplemental data sheet that the panel will  
13 be asked to look at. This overhead is the rest of the  
14 questions that are on the questionnaire. The next overhead  
15 summarizes the supplemental data sheet. I italicized the  
16 indication for use and the risks and hazards because I think  
17 those are critical elements of what we're going to ask the  
18 panel to focus on, as well as the summary of information.

19           As I mentioned, the petitioner has completed a  
20 questionnaire and supplemental data sheet and what I expect  
21 the panel to do is to go through that questionnaire and data  
22 sheet and essentially assess each of those questions and  
23 those responses.

24           In your panel folder, as Dr. Harvey mentioned, you

1 have the agenda and panel roster, you have the questionnaire  
2 and supplemental data sheet, as well as a hard copy of the  
3 overheads used by all the presenters today.

4           You also have a number of background papers and  
5 very briefly I'd like to mention a couple of the aspects  
6 that are in there. You have both of the papers that are  
7 published that are the studies that supported previous PMAs,  
8 including the study by Mou, et al and the study by Wapner,  
9 et al. You have position statements from the American  
10 College of Obstetrician and Gynecologists and you have a  
11 position statement from the National Women's Health Network.  
12 And, as Dr. Harvey also mentioned, we added a couple of  
13 additional papers that members of the panel asked to be  
14 included.

15           I'd like at this point to acknowledge Dr. Mike  
16 Diamond's help in reviewing the petition for  
17 reclassification. Dr. Diamond, we appreciate his efforts in  
18 going through this and he has also looked at the  
19 classification questionnaire and supplemental data sheet and  
20 has agreed to work with the panel and we'll be able to put  
21 those questions up on the overhead later this morning and  
22 work our way through that.

23           So very briefly with the agenda today, following  
24 my remarks we will move to the open public hearing. The

1 sponsor, Corometrics, will then present its petition for  
2 reclassification. We've also asked, as I mentioned, Dr.  
3 Weininger to go over special controls for you in particular,  
4 and the panel will then begin its deliberations on the  
5 petition and finally, complete the supplementary data sheet  
6 and questionnaire.

7           Those conclude my remarks. Are there any  
8 questions?

9           DR. EGLINTON: Okay, we'll move to the open public  
10 hearing. Dr. Hauth has a conflict with a meeting coming up  
11 very shortly this morning. We'll have Dr. Hauth go first so  
12 that he can catch his cab and get to NIH.

13                           COMMENTS OF DR. JOHN HAUTH

14           DR. HAUTH: Thank you. I'm Dr. John Hauth. I'm  
15 from the University of Alabama at Birmingham and I'm  
16 actually up here for an NIH research multi-center group. I  
17 found out about it this weekend that ACOG was going to send  
18 a petition and a statement and asked me to drop over and  
19 just present their viewpoint.

20           DR. EGLINTON: So no one has paid your expenses  
21 here for this particular meeting? You're here as a private  
22 citizen?

23           DR. HAUTH: Out of my research grant, and the cab  
24 ride over here.

1 I guess the reason they asked me was that I was in  
2 charge of their ob practice committee for several years and  
3 haven't been for a while. In fact, with their committee  
4 statement in '96 I wasn't their committee person then. It  
5 was Mike Manuti and Sharon Dooley who were responsible for  
6 that.

7 But I am the editor of their new Guidelines for  
8 Perinatal Care, which is a publication that just came out in  
9 August with the American Academy of Pediatrics that provides  
10 guidelines for perinatal care, maternal and fetal, and  
11 there's comments on strategies to prevent preterm birth in  
12 that and I guess with that background, they asked me to  
13 present their position.

14 I don't want to read the whole thing but basically  
15 there are several paragraphs. The first one says ACOG has  
16 systems in place to review things, educational and practice  
17 means, and they disseminate that to patients, as well as  
18 providers.

19 The next paragraph notes that in May of 1996 they  
20 put out a committee opinion. Remember now, their committee  
21 opinion and their reviews were focussed on something that  
22 isn't what Colin Pollard just said. It was focussed on  
23 outcomes, neonatal outcomes and preterm birth, not on  
24 cervical dilatation. They also funded an outside

1 independent meta-analysis.

2           So with all that, review of all the literature up  
3 through May '96 and their in-house meta-analysis, they  
4 concluded with a committee opinion which is their most  
5 proximate standard of care recommendation in May of '96,  
6 that there was no clinical efficacy and that further data  
7 was needed. Now, they haven't changed that opinion and it's  
8 still in press.

9           What has changed a little bit is that since that  
10 time there has been what ACOG would consider a compelling  
11 and definitive report. The purpose today is not necessarily  
12 to ask--I don't know all the rules and I'm not even sure  
13 ACOG knows the rules of the FDA panel but their request  
14 would simply be that this entire issue be opened up, not  
15 just whether another company, but the entire issue be opened  
16 up and that they start from scratch because of the original  
17 small size of the cervical dilatation in 40 some patients,  
18 which was a selective group out of 300 some.

19           And it's based not only on their review through  
20 May '96, which I realize wasn't directed towards the cervix,  
21 but if you look at the more recent report, it's a well  
22 designed trial of 2,422 patients, which is over 10 times  
23 larger than any other trial. It was within one care network  
24 and its leading author was, in fact, a person who had done a

1 study with the technology before in twins and said it might  
2 have some promise. Now with over 800 twins out of the  
3 2,400, he found none.

4 Now, their primary endpoint was preterm birth at  
5 less than 35 weeks and neonatal mortality, and they found  
6 none. But they also, in the 2,422 patients, looked at  
7 cervical length. They had an 80 percent power to show that  
8 there was no benefits in terms of the babies or the preterm  
9 birth but they had a greater than 95 percent power to show a  
10 difference, if there was one, in a centimeter or more  
11 difference in the three groups.

12 The three groups were weekly nurse contact, daily  
13 nurse contact and daily nurse contact with the monitor. So  
14 they had a three-arm study: weekly nurse contact, daily  
15 nurse contact without the monitor and daily nurse contact  
16 with the monitor. And with those three groups, they had a  
17 greater than 95 percent chance to show no difference. If it  
18 was a centimeter difference they can tell with a 95 percent  
19 power, and there was no difference.

20 So that is very compelling and definitively and  
21 personally and from ACOG's point of view, I don't think that  
22 there will be a better, larger study, better designed and  
23 randomized.

24 Now, there's one other aspect. One, ACOG would

1 focus on the FDA rules, which is selected cervical  
2 dilatation. And with 2,422 patients, there was no  
3 difference in cervical dilatation.

4           Number two, very worrisome is safety. They also  
5 found significant adverse effects in the third group, which  
6 was the daily nurse and the monitor. And in that group  
7 there were significantly more visits, unscheduled visits,  
8 and significantly more nonbeneficial use of tocolytic  
9 agents, which have great safety potential.

10           So there were two major safety concerns from that  
11 report, as well as a 95 percent power to show no change in  
12 cervical dilatation in 2,422 patients.

13           And with that current information, with the  
14 current guidelines and the endpoint of the FDA, one, it's  
15 focussed on cervical dilatation and two, there's two major  
16 safety considerations.

17           So, as I mentioned, ACOG requests and urges the  
18 FDA Devices Panel to reopen the entire approval for this  
19 product, which was originally based on 40 some patients with  
20 a cervical change of 1.4 centimeters in 40 some patients.

21           And, as an addendum, and I wasn't aware of the  
22 background, the ACOG people added the last notation, that  
23 they would also oppose opening it up to other manufacturers,  
24 since they feel you should take one step backwards and

1 perhaps look at the entire product in regard to the rules,  
2 which is cervical dilatation and safety. Thank you.

3 DR. EGLINTON: Thank you.

4 DR. HAUTH: I really appreciate your letting me go  
5 first.

6 DR. EGLINTON: Now from the National Women's  
7 Health Network, Ms. Cindy Pearson.

8 MS. YOUNG: Do you have any written comments?

9 DR. EGLINTON: Dr. Hauth was referring to the  
10 comments from Dr. Stanley Zinberg. He didn't read it  
11 directly but it's in your folder.

12 COMMENTS BY CINDY PEARSON

13 MS. PEARSON: I think Ms. Young was asking whether  
14 we have written comments and I'm Cindy Pearson, executive  
15 director of the National Women's Health Network and I'm  
16 sorry; I apologize to all of you that we weren't able to get  
17 written comments in for this meeting.

18 So you're just going to have to take it from what  
19 I say, but I can be very brief and to the point and partly  
20 because Colin did such a wonderful job of laying out the  
21 chronology and the chronology with the key decision points.  
22 So we all now have the same understanding of what happened,  
23 which is really useful, given this series of many meetings  
24 over many years.

1 I think the important point that Colin mentioned  
2 in that chronology was the 1989 decision made by the FDA to  
3 change the question that had to be answered by sponsors of  
4 this product. Back at that time we disagreed and many  
5 members who've been on the panel the longest remember that  
6 happening. We still disagree, as most of you know because  
7 we've been around to talk about it.

8 We certainly understand the context and we're an  
9 independent advocacy group. I'm sorry; I forgot to do the  
10 disclaimer. We're supported by our membership and a few  
11 small foundation grants. We have no financial ties to any  
12 producers of medical equipment or drugs. We advocate both  
13 at the FDA and at Congress and we certainly understand the  
14 context.

15 Colin mentioned discretely that in 1989 that the  
16 earlier interpretation of the FDA's thinking on what  
17 question had to be answered was challenged at the highest  
18 levels of the FDA. We certainly know, and we've been there  
19 watching while Congress and television shows have had a  
20 series of hearings talking about the devices that the mean  
21 old FDA won't let the American public have that could save  
22 their lives. And when you get past the sensationalism of  
23 what's being talked about, usually one of the points is are  
24 we talking about approving the device because the device

1 works or are we talking about approving the device because  
2 it's been shown to help patients?

3           You know, I just want to say that even though  
4 we're going to stand up and say something that's awkward and  
5 hard for the FDA to do, we understand why the FDA is in the  
6 place it's at, thinking that it's hearing from some parts of  
7 the public that it should just approve devices because  
8 devices work, whether or not they help patients.

9           But we want to speak again from the public health  
10 perspective, that in all sorts of interventions to improve  
11 the health of the public, we know that finding a surrogate  
12 marker that is a risk factor for a later bad outcome and  
13 improving that surrogate marker is a good towards improving  
14 the health of the public. But it's certainly better if you  
15 can get all the way to the outcome that you want to improve  
16 and show that an intervention improves that, and that's, as  
17 often as possible, the standard that we try to hold  
18 ourselves to.

19           So we would like the FDA to not consider  
20 reclassifying HUAMs from Class III to Class II because we  
21 feel like the continuing research in the 1990s, even setting  
22 aside the more recent study, and I'm in the same boat as the  
23 person speaking on behalf of ACOG because we don't know your  
24 rules about whether it was submitted in time to be discussed

1 at this meeting.

2           But what we've seen, watching from the sidelines  
3 as a consumer group--I see Dr. Eglinton looking at his  
4 watch; I hope you're not going to remember your  
5 sharpshooting skills here on me--what we've seen is that the  
6 research that's done by the HUAM sponsors and, to a certain  
7 extent, on tocolytics, has thrown into doubt the  
8 effectiveness of number of contractions per hour as a risk  
9 factor for preterm labor, that we've gone by pushing forward  
10 on research some of it as a result of FDA requirements for  
11 Class III devices, that we have found that we need to go  
12 back a step and research and figure out what are the risk  
13 factors for preterm labor and what are the surrogate markers  
14 or intermediate markers.

15           So all I want to say, inclusion, is that we're in  
16 something of a bad situation. We have technology that's  
17 been around that may not have been doing much good that's  
18 being used far off its labeled indication, in a much broader  
19 way. And this situation has been in existence all through  
20 the '90s and it would be very difficult to go back and start  
21 from scratch and rethink it, but we feel that that if the  
22 FDA can't make that happen, no one's going to.

23           So as a consumer group we just have to look to you  
24 and ask for what we think is in the best interest of the

1 health of women, which is to first say no to the  
2 classification change and secondly, to ask the agency to  
3 find a way to relook at the whole issue. It would obviously  
4 need to be looking at both parts of the technology, both the  
5 drug and the device.

6 Thanks for your time.

7 DR. EGLINTON: Thank you.

8 Now we have a representative from Matria  
9 HealthCare, Dr. Stanziano.

10 COMMENTS BY DR. GARY STANZIANO

11 DR. STANZIANO: Thank you. I'm just here to give  
12 a brief statement from Matria HealthCare. I don't mean to  
13 be long-winded about it.

14 My name is Gary Stanziano. I'm the vice president  
15 of medical affairs and medical director for Matria  
16 HealthCare. Just for informational purposes, Matria  
17 HealthCare is a result of a merger between the former Tokos  
18 organization and the former Healthdyne organization. And  
19 for your information, within Matria HealthCare are actually  
20 four HUAM devices presently that have been approved, three  
21 devices which are approved and then the Tokos device, which  
22 Matria does use.

23 Anyway, we wanted to come here today just to  
24 basically present our opinion in terms of how we feel as an

1 industry component in terms of this whole process and  
2 reclassification petition.

3           We feel, as an overview, there are no new clinical  
4 data that have been presented in the petition that were not  
5 available to the FDA when it was determined to require PMAs  
6 for the preterm use of these home uterine activity devices.  
7 No data has been presented to establish that other than PMA  
8 controls will provide a reasonable assurance of the safety  
9 and efficacy of a device intended to help support preterm  
10 human life. Next overhead, please.

11           To take the first point, the information that's  
12 presented within the reclassification petition is not new.  
13 The information which is referenced as being the basis for  
14 reclassification is actually a summary of prior clinical  
15 studies that have been presented to both FDA and the panel.

16           In fact, this information has been discussed  
17 during the review of prior premarket approval applications,  
18 clinical studies proposed and presented for IDE applications  
19 and through published literature summaries that have been  
20 presented at some of our past panel meetings.

21           At each of the eight past panel meetings held to  
22 discuss how HUAM devices are clinically efficacious, FDA and  
23 the panel have concluded that the device should remain Class  
24 III. Indeed, the information summarized in part 7 of the

1 petition and, in particular, the consensus reviews, tables 7  
2 through 5, show the lack of agreement on demonstrating the  
3 efficacy of the preterm use of the device.

4           In view of the lack of consensus that was present  
5 between the FDA, PMA applicants, the panel, several efforts  
6 were undertaken to reach agreement with FDA concerning how  
7 safety and effectiveness for these devices could be  
8 demonstrated. These efforts include the presentation of an  
9 industry position paper which proposed preclinical and  
10 clinical studies for proving the safety and efficacy of the  
11 HUAM device and an industry working group which worked with  
12 the FDA to develop a guidance document specifying PMA  
13 preclinical and clinical test requirements.

14           At no point during any of these discussions was  
15 changing the classification of the device considered or  
16 recommended by FDA as a viable option because only clinical  
17 data specific to each device could provide a reasonable  
18 assurance of safety.

19           This last point is very important because the  
20 historical position and continuing message from FDA and the  
21 panel is contrary to the position taken within the present  
22 petition, which contends that these devices for preterm use  
23 are not represented or intended "for use which is of  
24 substantial importance in preventing the impairment of human

1 health."

2           Quite the contrary, FDA and the panel have always  
3 insisted that in order to prove the clinical utility of the  
4 preterm use of the HUAM monitor, the PMA applicant must  
5 demonstrate that the health care practitioner can use the  
6 information from the device to improve the ability to detect  
7 the actual onset of preterm labor. In addition, the  
8 detection of preterm labor must be early enough to allow the  
9 health care practitioner to have an early opportunity to  
10 intervene.

11           As a result of the information provided by the  
12 monitor, clinicians are making treatment decisions and are  
13 intervening with medical treatment in an effort to either  
14 arrest preterm labor, prevent a future occurrence of preterm  
15 labor, or provide treatment to improve the viability of the  
16 neonate when preterm labor cannot be successfully halted.

17           In any event, the use of these devices is directly  
18 related to preventing the impairment of maternal and  
19 neonatal health.

20           Because FDA has not been able to establish  
21 specific criteria from which special or general controls  
22 could be determined, the FDA has demanded clinical evidence  
23 for each approved device that can establish a reasonable  
24 assurance of safety and efficacy. FDA cannot reclassify a

1 Class III device whose use is directly related to preventing  
2 the impairment of health unless FDA can determine that  
3 evidence from clinical studies, as required in the PMA, is  
4 not necessary for the reasonable assurance of safety and  
5 efficacy. The reclassification petition provides no new  
6 evidence that would permit a change in FDA's prior  
7 conclusion.

8           There are also several inconsistencies present  
9 within the reclassification petition. For example, the  
10 petition relies upon clinical studies published within the  
11 medical literature as one basis to support the  
12 reclassification. However, there's no information presented  
13 within the petition to demonstrate or distinguish that the  
14 studies which are relied upon meet FDA's requirement or  
15 definition of valid scientific evidence.

16           In addition, the petitioner argues that design  
17 controls presented within the quality system regs and  
18 special controls are sufficient to assure the safety and  
19 efficacy of the device. However, the design control  
20 requirements within the QSR are not yet effective and  
21 special controls for this device have yet to be identified.  
22 Therefore, they cannot be used as a basis to support this  
23 reclassification petition.

24           The petitioner also argues that the lack of

1 adverse reports concerning the injury or deaths that  
2 occurred while the device was in use or malfunctions of the  
3 device through the medical device reporting regulation is a  
4 basis for reclassification. It is our position that the  
5 reason for this low incidence reporting is due to the  
6 regulatory controls and level of clinical testing that  
7 currently are required for preterm use of HUAM devices. In  
8 the absence of these controls, the reporting of injuries,  
9 deaths and device malfunctions would, in all likelihood, be  
10 higher.

11           The reclassification petition must establish that  
12 special controls provide a reasonable assurance of the  
13 safety and efficacy of the device. Yet the studies charted  
14 in part 7 of the present petition and especially the  
15 consensus reviews show that the published clinical evidence  
16 has not led to an agreement on the efficacy of the device  
17 for preterm use.

18           Thus, the FDA determination that only individual  
19 clinical data, that is, data presented for each device  
20 within a PMA, would suffice, remains supported by the  
21 studies in the petition.

22           The device classification questionnaire and  
23 supplemental data sheets are similarly inconsistent with the  
24 controlling FDA and panel decisions over the decade-long

1 review of these devices for preterm use. FDA has treated  
2 these devices as being of substantial importance in  
3 preventing the impairment of neonatal and maternal health.  
4 Thus, the answers to questions 1 and 4 are in error.

5 In addition, the FDA requirement of specific  
6 clinical data means that testing guidelines alone are  
7 insufficient to assure safety and efficacy, so that question  
8 7 should have been answered "no."

9 In the same way, question 7 in the supplemental  
10 data sheet should have been answered, "The device is life-  
11 sustaining or life-supporting," based on FDA's past position  
12 that the device is of substantial importance in preventing  
13 the impairment of human health.

14 Physiologic Diagnostic Systems, PDS, Healthdyne  
15 Perinatal Services, Carelink, Tokos Medical and Advanced  
16 Medical have presented eight separate PMA applications to  
17 FDA for consideration since the preterm use of these devices  
18 was categorized as being Class III and the panel has  
19 reviewed each of these PMAs. Next overhead, please.

20 In addition, FDA has held two separate panel  
21 meetings to discuss PMA requirements for these monitors, as  
22 specified within the PMA testing guidelines for HUAM, and  
23 held the most recent panel meeting to discuss and review the  
24 study design and differing study results reached by

1 Caremark.

2           At each of the panel meetings, several study  
3 designs from each PMA have been presented and debated and  
4 were rejected for a variety of reasons, including but not  
5 limited to failure to randomize properly, inappropriate  
6 controls, et cetera.

7           After considerable commitment of FDA and industry  
8 staff time, independent clinical staff time and financial  
9 resources expended by industry, the FDA and panel concurred  
10 that cervical dilatation was acceptable as a clinical study  
11 endpoint. Thus, this led to acceptance by FDA and the panel  
12 of the initial PMA approval for preterm use of the monitor  
13 to PDS based on cervical dilatation.

14           Two additional home uterine activity monitors have  
15 received PMA approval--the Healthdyne System 37 and Carelink  
16 CarePhone--September 1995, bringing the total to three.

17           Because a clinical endpoint has been adopted as  
18 the only measure of efficacy, it is evident that no special  
19 controls--that is, design and manufacturing controls--can  
20 provide reasonable assurance of efficacy. Only clinical  
21 evidence required under a PMA that is specific to the device  
22 being tested will suffice.

23           As a result, the FDA cannot reclassify this device  
24 so long as only a clinical endpoint can provide the

1 requisite evidence.

2           The petitioner at present was granted an IDE in  
3 1992 for the purpose of conducting a clinical study to  
4 develop the necessary clinical PMA information. However,  
5 the results of the study have not yet been published in a  
6 peer review journal, nor have they been presented to the FDA  
7 or this panel for review or difference. I believe Dr. Hauth  
8 alluded to the results of the study, an abstract of which  
9 was presented at this year's SPL meeting.

10           At this point one can only presume that the study  
11 results do not establish the efficacy of the device and  
12 would not support a PMA approval from the FDA. As a result,  
13 the petitioner is seeking to reclassify the device rather  
14 than perform the necessary efficacy studies to support a PMA  
15 approval.

16           Efforts to attain PMA approval for this device  
17 have been extremely taxing. A tremendous amount of time,  
18 effort and money have been expended by industry, physicians,  
19 clinical researchers, statisticians, the FDA itself and, of  
20 course, the panel in determining the most appropriate  
21 clinical study.

22           In addition, prior to receiving PMA approval,  
23 there are numerous engineering, manufacturing and clinical  
24 audit and review issues which must be addressed with the FDA

1 by the manufacturer to comply with the regulations which  
2 apply to PMA-controlled medical devices.

3           The costs associated with these approvals and  
4 applications for the PMAs have been extremely high. Many  
5 times, due to lack of early consensus between the FDA and  
6 panel, more than one clinical study, with differing  
7 endpoints, has been attempted and carried out by individual  
8 manufacturers.

9           These study costs, in addition to the R&D  
10 development costs associated with the actual design and  
11 manufacture of the medical device, along with setting up,  
12 conducting, monitoring, auditing and submitting the PMA,  
13 have been extremely high.

14           Just as a ballpark approximation, the PDS company  
15 spent approximately \$1 million; Tokos Medical \$2 million;  
16 Healthdyne Perinatal Services, \$2.5 million; Carelink, \$3.5  
17 million; Caremark, data not available; Corometrics, data not  
18 available; and Advanced Medical, data not available. These  
19 are extremely large sums of money that have principally been  
20 spent because of the requirement of a PMA.

21           The financial, product development and market  
22 development investment that has been made is extensive. The  
23 PMA process has been very difficult but part of the reward  
24 for enduring this effort indeed has been one of the reasons

1 to tackle a new frontier, to introduce new devices to the  
2 marketplace, and that is the recognition that each PMA  
3 applicant has to ensure the same process prior to receiving  
4 a PMA approval. For the companies that have endured this  
5 process to become successful in obtaining approval, it is  
6 totally inappropriate to grant a reclassification petition  
7 based on information that the FDA and the panel have been  
8 aware of throughout this entire process.

9           The Federal Food, Drug and Cosmetic Act, Section  
10 520, prohibits the use of any data submitted to FDA under  
11 Section 515--that is, PMA data--in reclassifying a device  
12 from Class III to Class II. In addition, Section 520  
13 prohibits the FDA's consideration of safety and  
14 effectiveness data contained in the PMA when reviewing  
15 another PMA until one year after the fourth PMA for that  
16 device has been approved, which we have not achieved yet.

17           To date, only three PMAs have been approved. What  
18 this reclassification petition seeks to do is to circumvent  
19 the protections of the economic investment of PMA holders by  
20 citing to published information arising out of the past PMA  
21 process. That attempt, we feel, should be unavailing, as  
22 those data do not represent new evidence that was not before  
23 FDA when it approved the current PMAs. The last slide,  
24 please.

1                   So, in conclusion, based on the history of  
2 regulating this device, with its important role in avoiding  
3 maternal and neonatal health impairment, we do not believe  
4 that the reclassification petition has presented data that  
5 would permit this panel to recommend or FDA to order  
6 reclassification from Class III to Class II. No new data  
7 that would permit the adoption of special controls has been  
8 presented and the FDA requirement of clinical endpoint  
9 efficacy is incompatible with the use of nonclinical  
10 criteria to assure safety and efficacy.

11                   What this petition seeks to do by relying on data  
12 used in the support of prior PMAs is upset the delicate  
13 balance established by Congress to protect the effort and  
14 investment of PMA applicants until one year after the fourth  
15 PMA in a class has been approved. We urge that the panel  
16 recommend denial of the present reclassification petition.  
17 Thank you very much for your time.

18                   DR. EGLINTON: Thank you.

19                   Now we have the beginning of the Corometrics  
20 presentation.

21                   COMMENTS BY MARIA FOUTS

22                   MS. FOUTS: Good morning. My name is Maria Fouts  
23 and I'm with Corometrics Medical Systems. What I'm going to  
24 do with my presentation today is just going to give you an

1 overview of the home uterine activity reclassification  
2 petition.

3           Before I go into the general contents of the  
4 petition I just want to restate that the objective of the  
5 petition, in accordance with the rules and requirements as  
6 enacted by Congress, is to reevaluate the classification of  
7 the current device. Specifically for this petition, this  
8 petition seeks to demonstrate that home uterine activity  
9 devices do not meet the Class III criteria and supports the  
10 reclassification of the device from Class III to Class II.

11           The general petition contents, I'm going to go  
12 into just a little bit of overview of home uterine activity  
13 devices, just a little bit touch on what Colin mentioned  
14 earlier today, go into the Class III indications for use  
15 because these are different from Class II home uterine  
16 activity devices which are available on the market today.  
17 Then I'm going to touch on just a general device description  
18 for home uterine activity devices in case there's anyone  
19 here that may not be familiar with this type of product.

20           Then, after that, I'll be reviewing the Class III  
21 device criteria, as outlined in the Code of Federal  
22 Regulations, and to review whether these criteria are still  
23 suitable for home uterine activity monitoring devices.

24           In general, home uterine activity monitoring

1 devices fall under Class II and Class III. They're  
2 essentially the same device in terms of the functions,  
3 design and method of operation. The main difference is in  
4 the indications for use. Class II devices are restricted to  
5 term use only and those can also be used in the home.

6           For Class III home uterine activity devices, and  
7 this is the main device that's under question in the  
8 petition, the indications for use, specifically what's been  
9 approved by FDA for the last three PMAs, is that this device  
10 is indicated for use in conjunction with high-risk care, for  
11 the daily at-home measurement of uterine activity in  
12 pregnancies greater than or equal to 24 weeks gestation for  
13 women with previous preterm birth. Uterine activity is  
14 displayed at a remote location to aid in the early detection  
15 of preterm labor.

16           What I'm going to go over now is just a general  
17 device description. You may see variations, depending on  
18 the devices that are out there.

19           The home uterine activity monitoring system  
20 consists of these basic components, the first of which is a  
21 tocotransducer, which is a pressure transducer. And the  
22 typical types of design are a Smythe-style guard ring  
23 pressure sensor and the other one is a plunger type of  
24 sensor, which measures indirectly the uterine contractions

1 when it's applied to the maternal abdomen.

2           This transducer could be connected either directly  
3 or radio or infrared-linked to the uterine activity monitor  
4 or uterine contraction monitor and this monitor may or may  
5 not have imbedded within its unit a recorder or memory to  
6 store the data once it's acquired from the tocotransducer.  
7 It also includes a telephone data transmitter to transmit  
8 the data over the phone lines to a remote work station and  
9 the remote receiving work station includes software so that  
10 the data may be reviewed by a care provider.

11           The last set of components are patient and  
12 provider manuals.

13           A typical monitoring session that we've seen  
14 prescribed is that a mother is asked to monitor her uterine  
15 activity or uterine contractions for about an hour a day  
16 twice a day. And for each session the uterine activity is  
17 acquired by the tocotransducer that's applied to her  
18 abdomen. It's processed by the monitor and sent over at the  
19 end of the session through a regular phone jack over the  
20 phone lines to another phone jack and the computer at a  
21 remote work station.

22           What I'm going to go over now is the Class III  
23 device classification criteria. These are outlined in a lot  
24 more detail in the actual Code of Federal Regulations.

1                   For this particular device there are four types of  
2 criteria. The first criteria is insufficient information  
3 exists to determine that general controls or special  
4 controls provide reasonable assurance of safety and  
5 effectiveness and that device is represented to be life-  
6 sustaining or life-supporting.

7                   The last two criteria are that the use of the  
8 device is of substantial importance in preventing impairment  
9 of human health or presents unreasonable risk of illness or  
10 injury.

11                   The main question that the petition asks is does  
12 the Class III criteria continue to apply to home uterine  
13 activity monitoring devices. In order to answer this  
14 question the petition looks at the available literature  
15 that's out there. This includes the data that was reviewed  
16 at all the panel meetings and also recent data this year,  
17 early in 1997, one of which the ACOG representative  
18 discussed in the earlier talk today.

19                   We also look at field history for home uterine  
20 activity monitoring devices and related devices,  
21 specifically medical device reports, and these are required  
22 reports that relate to serious injury or death or potential  
23 serious injury or death and these are required to be  
24 reported to the manufacturer and also to FDA. We also look

1 at complaint data. As a result of this information, we'll  
2 take a look at actual and potential risks and methods of  
3 controls for these risks.

4 In the petition we cite 79 published articles.  
5 These articles range from data that was available early in  
6 the 1970s all the way up to this year, earlier this year.  
7 This includes randomized clinical trials, observational  
8 studies, reviews of these studies, editorials, editorial  
9 responses, committee and organizational opinions and  
10 evaluations of the published data. This data was not  
11 specifically taken from the PMA but they're all publicly  
12 available data.

13 The literature includes related topics on the  
14 effects of education, nursing contact and high-risk care,  
15 and that's with or without the use of home uterine activity  
16 monitoring, just to give a general picture.

17 The literature does not include all related home  
18 uterine activity monitoring publications; for example,  
19 specific studies that talk only about risk-scoring, patient  
20 management studies involving only the use of tocolytic  
21 drugs.

22 Section 7 in the petition goes into detail  
23 reviewing all the articles that were presented in the  
24 petition. That could take quite a bit of time to reiterate

1 that data so what I'm going to just point out to you is just  
2 the salient points that came out when we reviewed the data.

3           The first point is that various complex risk  
4 factors are associated with preterm birth and that these  
5 risk factors are not predictive of spontaneous preterm  
6 birth, which accounts for about 40 percent of the etiology  
7 of preterm births. The remaining groups are broken down  
8 into premature rupture of membrane, which accounts for about  
9 35 percent, and medically indicated preterm birth, which is  
10 about 25 percent. This data was taken from Hill and Gookin.

11           Also what we found in the literature is that there  
12 are various methods and controls that were cited for  
13 managing at-risk patients and these include patient  
14 education, self-palpation, regular provider contact, the  
15 establishment of local support groups, as well as the use of  
16 home uterine activity monitoring.

17           All these methods, whether by themselves or a  
18 combination, have shown a reduction in preterm birth rate in  
19 retrospective comparison with the same population where such  
20 methods did not previously exist.

21           There's a general agreement in the literature that  
22 correct patient screening for enrolling into the various  
23 programs is critical and that home uterine activity devices  
24 pose no serious risk--for example, injury or death--to the

1 patient or provider.

2           The main controversy that you see in reviewing the  
3 literature is which method or combination of methods is more  
4 effective in reducing preterm birth and the associated  
5 costs? We feel that the controversies will likely remain so  
6 long as the specific etiologic causes for preterm birth  
7 remain unresolved and that clinical opinions and practices  
8 continue to vary per physician.

9           What the petition does not do is prescribe a  
10 method of care and that home uterine activity monitoring  
11 remains an option regardless of the outcome of the  
12 reclassification. Ultimately, the physician makes the final  
13 decision on which method or methods is appropriate for his  
14 or her patient.

15           So if we refocus on the petition, the petition  
16 does not expand the previously approved indications, and I  
17 discussed this earlier and also Colin mentioned earlier the  
18 indications that have been approved or associated with the  
19 PMA devices that are currently on the market.

20           And what we get from this literature is a larger  
21 body of evidence that is now available--data that was  
22 reviewed by the panel and data that has just been published  
23 recently, including, I believe, the Dyson study that we were  
24 all referring to earlier today. This data can be used for

1 making informed decisions.

2           So what I reviewed earlier was just a general  
3 snapshot of the literature that's cited in the petition.  
4 What I'd like to review now is the field history for this  
5 particular device.

6           We took a look at the medical device reports.  
7 Again, these are required reports that are to be filed with  
8 FDA and the manufacturer in the case that there's an actual  
9 or potential serious injury or death. What we found, at  
10 least from our source, Diogenes, is that there have been no  
11 MDRs that have been filed for home uterine activity  
12 monitors.

13           When we look at complaint data, complaint data is  
14 proprietary, so we could only look at the information that  
15 we have here in-house at Corometrics. Corometrics has had a  
16 Class III home uterine activity monitor that was used in a  
17 clinical study. Specifically it was used in the Dyson  
18 study. I believe that was over 2,400 patients that were  
19 cited in that study and we did not receive any complaints  
20 from this multi-centered study.

21           The reason why I put up field history for Class II  
22 devices is essentially they are the same device when you  
23 look at the design, function and operations. They have a  
24 longer history of use and I believe Colin mentioned earlier

1 that these are pre-amendment devices. They were available  
2 prior to May of 1976. You can find them in the home and  
3 hospital, the home one specifically restricted to term use  
4 only.

5 Because of this, we feel that there are similar  
6 risks that you can see in Class II that could probably apply  
7 to the Class III home uterine activity monitoring devices.

8 This data was also taken from Corometrics and we  
9 looked at again all the hospital and the home devices that  
10 met the uterine contraction description. We found in-house  
11 that there were again no MDRs that have been filed for this  
12 type of equipment.

13 We also looked at complaints and we found a very  
14 low ratio of complaints that have been filed with us and  
15 with the FDA compared to the units shipped. The rate that  
16 we saw for the monitors was .03 percent and for transducers  
17 it was .06 percent.

18 We'll now look at the risks and methods of  
19 control. Again, this is taken from the literature and what  
20 we've seen in the field history.

21 The associated risks for any type of electrical  
22 medical equipment, including home uterine activity monitors,  
23 could be the result of device malfunction, allergic reaction  
24 to the patient contact materials, for example, on the

1 transducer surface when it's applied to the abdomen, or a  
2 belt that may be used and incorrect or improper use by the  
3 patient or provider.

4           The root causes for these general risks are  
5 improper or inadequate design. The petition goes into  
6 detail for the actual risks and the specific root causes but  
7 I'm just going to give you a general overview.

8           The root causes for the risks mentioned earlier  
9 could be inadequate or improper design provisions for  
10 electromagnetic compatibility. We've seen problems with  
11 this with infant apnea monitors and any kind of electrical  
12 equipment, both used in the home and the hospital.

13           Also inadequate electrical, mechanical and  
14 software design or inadequate design control and validation  
15 when their product changes. Human factors is also an issue  
16 in case you don't design the on/off button that the patient  
17 or provider is used to seeing. And again, material  
18 biocompatibility.

19           Other root causes for the risks mentioned earlier  
20 would be improper or inadequate manufacturing practices and  
21 inadequate instructions for use.

22           The methods of control that are available today  
23 that were not available earlier in the 1990s and the late  
24 1980s include electromagnetic compatibility voluntary

1 performance standards, standards such as what's currently  
2 available are IEC standards. There are also international,  
3 national safety standards for electrical medical equipment.  
4 We all know about UL. Specifically for medical devices  
5 there's UL 2601 and before that, UL 544 and the  
6 international standard IEC 601-1. These are all now  
7 available.

8           Then there is the FDA's quality system regulation,  
9 which came into effect June of 1997, this year. This  
10 included the provisions for design controls which were not  
11 in place in the early approvals for the PMA Class III  
12 devices.

13           Then there's also quite a number of FDA guidance  
14 documents that have come out in late '96 and also in '97,  
15 guidance documents regarding design controls, software,  
16 human factors, biocompatibility.

17           Additional methods of control, again specifically  
18 for manufacturing practices, FDA's quality system regulation  
19 maintains a lot of the original good manufacturing practice  
20 regulations and this covers everything from receiving  
21 inspection to the actual manufacture of the device to the  
22 shipping, installation and now includes servicing.

23           Instructions for use. FDA has provided a "Write  
24 it Right" guidance for instructions used in home health

1 care. These instructions are to be written at a fifth grade  
2 level to ensure that most parents or all parents are able to  
3 understand the instructions.

4 There are additional FDA requirements for on-  
5 product labeling and instructions for use and there are also  
6 national voluntary and international standards for symbols.

7 So we've looked at the literature, the field  
8 history, the risks and the available methods of control. I  
9 guess the question that we still need to address today is  
10 does the home uterine activity monitoring device continue to  
11 meet the Class III criteria?

12 Again, if we go back and visit the first criteria  
13 or the first part, "Insufficient information exists to  
14 determine that general or special controls provide  
15 reasonable assurance of safety and effectiveness." We need  
16 to remember that the petition seeks to maintain the approved  
17 indications for use, so we are not revisiting the  
18 effectiveness question that was established for the last  
19 three PMA devices.

20 And with respect to safety I just recall that  
21 there have been no MDRs reported and there are adequate  
22 controls that are available now that may not have been  
23 available earlier back in the late '80s and early '90s. So  
24 what we've found is that this is "no."

1                   Life-sustaining or life-supporting. If we look at  
2 the Code of Federal Regulations life-sustaining or life-  
3 supporting means "a device that is essential to or that  
4 yields information that is essential to the restoration or  
5 continuation of a bodily function important to the  
6 continuation of human life." We feel that this device has  
7 never been represented to be life-sustaining or life-  
8 supporting.

9                   The third criteria, "Represented as substantially  
10 important in preventing impairment of human life." These  
11 devices are not represented as such. And the approved  
12 indications, again if we revisit that, state that the device  
13 is intended to be used in conjunction with high-risk care.  
14 So we're not solely relying on this device. And the device  
15 is to be used as an aid in the early detection of preterm  
16 labor.

17                   Does the device present unreasonable risk of  
18 illness or injury? Again if we go back and recall the MDR  
19 and complaint data, actual field history and also  
20 literature, specifically the U.S. Preventive Services Task  
21 Force, in reviewing the literature, stated that this device  
22 poses no unreasonable risks. We find that this last  
23 criteria is not met.

24                   So we conclude with this petition that the home

1 uterine activity monitoring devices do not meet the Class  
2 III criteria and it should be reclassified into Class II.

3 Thank you.

4 DR. EGLINTON: Thank you.

5 We're a little bit ahead of schedule, fortunately.

6 We'd like to move on to Dr. Sandy Weininger, Office of  
7 Science and Technology, FDA.

8 REPORT OF DR. SANDY WEININGER

9 DR. WEININGER: Good morning, panel, ladies and  
10 gentlemen. My name is Sandy Weininger. I'm an engineer  
11 with the Office of Science and Technology with the Center  
12 and I've been asked today to discuss the engineering aspects  
13 of safety and effectiveness as they might apply to the  
14 reclassification of the home uterine activity monitor. Next  
15 slide, please.

16 Section 513 of the act, the Food, Drug and  
17 Cosmetics Act, defines three classes of devices: Class I,  
18 where general controls are adequate to assure safety and  
19 effectiveness; Class II, where special controls, in  
20 conjunction with general controls, are adequate to assure  
21 safety and effectiveness; and Class III, where neither  
22 general nor special controls are adequate to assure safety  
23 and effectiveness.

24 Essentially all devices start out as Class III

1 unless they can be shown to be substantially equivalent to a  
2 legally marked Class I or Class II device. In the current  
3 case the manufacturer has petitioned under the act to  
4 reclassify their device from Class III to Class II.

5 Can a set of special controls be identified which  
6 are adequate to assure safety and efficacy? Part of the  
7 answer to this question hinges on the degree to which the  
8 special controls address the hazards posed by the device.

9 I have considered the special controls from an  
10 engineering perspective and believe that they do adequately  
11 assure safety and effectiveness. I am here today to  
12 describe the approach I took and the key findings and ask  
13 that you consider whether there are other hazards which are  
14 of such high risk that they, too, must be addressed. Next  
15 slide, please.

16 Let me briefly review what are Class I controls,  
17 general controls. General controls are applied by the Food  
18 and Drug Administration to the industry and are explicitly  
19 called out in the act and are applicable to all devices.  
20 For example, the act defines adulteration and prescribes  
21 criminal sanctions to address violations of such.

22 The current good manufacturing practices or  
23 quality systems regulation--it's called good manufacturing  
24 practices because that's what it says in the act, in the

1 statute; however, the regulations refer to it as a quality  
2 systems regulation and that's just part of the bureaucracy--  
3 they establish controls for components, processes,  
4 packaging, labeling, manufacturing and complaint processing.  
5 So these are applicable to all devices, not just to Class II  
6 or Class III or Class I. So no matter what class the device  
7 falls into, you have to do complaint handling and recording.

8           The act states that the device is presumed to be  
9 adulterated, for example, if it is not manufactured in  
10 compliance with the quality system regulation. So there are  
11 criminal penalties for failing to do proper complaint  
12 handling, report handling or accident investigation, for  
13 example. Next slide.

14           Special controls, which we see are related to  
15 Class II devices, are specific to the device, the intended  
16 use and/or the environment. These controls are unilaterally  
17 imposed by FDA but have generally evolved out of a consensus  
18 process.

19           I'd like to take note of the last item up here,  
20 quality system regulations, design controls. Although the  
21 quality system regulation is a general control, most Class I  
22 devices are exempt from design control provisions. Since  
23 the design controls are associated mostly with Class II and  
24 Class III devices, it is practical to treat them as special

1 controls, even though they are technically not. And I will  
2 note, as Ms. Fouts did, that the design controls are in  
3 effect as of June 1, 1997; however, the inspectors will not  
4 be enforcing them until June 1, 1998, but manufacturers are  
5 required to comply with their requirements.

6 Colin and the previous speakers have already  
7 addressed the issues surrounding clinical effectiveness.

8 Let me now take some time to describe what I consider  
9 engineering safety and effectiveness. I'll walk you through  
10 the most important hazards identified and how special  
11 controls can be used to assure safety and effectiveness.

12 Next slide, please.

13 There's an established engineering process for  
14 hazard identification and the risk management process which  
15 has been captured in many ISO and IEC standard, as well as  
16 by the European Union medical device directives and the Food  
17 and Drug Administration's numerous guidance documents.

18 In front of you is a list culled from those  
19 various sources of the general classes of hazards and you  
20 can read them for yourself--chemical, infection,  
21 construction. Most of the international standards address  
22 these issues and, in fact, our guidance documents do, too.

23 Let me remind you that risk is related to the  
24 likeliness of occurrence of a hazard combined with the

1 severity of its consequences. A lower acceptable risk may  
2 result from either a low likelihood of occurrence or of a  
3 low severity. Hazards associated with high risks were  
4 mitigated by design features until the residual risk was  
5 reduced to an acceptable level.

6           It's interesting to note that special controls  
7 proposed by the firm are closely aligned with assuring the  
8 effectiveness of these mitigation techniques throughout the  
9 life cycle of the product. That's where the strength of  
10 design controls come in. Let me give you a few examples of  
11 the most important hazards and how the special controls have  
12 mitigated these. Next slide, please.

13           For home devices in particular, the ingress of  
14 liquids into the monitor may cause a potential low voltage  
15 electric shock. The manufacturer uses labeling, both the  
16 patient and provider manuals, asking you not to spill things  
17 on the particular device, as well as detailed mechanical  
18 specifications that protect you in the event that liquids do  
19 actually fall on the device.

20           In addition, IEC 60601, which is the current  
21 nomenclature for IEC 601, also addresses this and the  
22 manufacturer claims conformance with this particular  
23 standard. Therefore the risk levels are deemed acceptable.  
24 Next slide, please.

1                   Certainly the biggie in electrical safety  
2 standards are exposure to line voltages. The tocotransducer  
3 is a battery-operated device, so in that respect there is no  
4 exposure to line voltages but the base unit is powered by  
5 the electrical mains, so there is a potential shock hazard  
6 here.

7                   IEC 60601 takes great pains to go through ensuring  
8 safety with respect to shock hazards from electrical mains.  
9 The manufacturer adheres to this, as well as having detailed  
10 electrical requirements and verification testing to assure  
11 that their device will be safe now and under future design  
12 changes. Again, therefore, the risk is deemed acceptable.  
13 Next slide, please.

14                   In the event the home user picks up a different  
15 battery charger, which perhaps is not isolated, this could  
16 present an undue risk of shock hazard. The manufacturer  
17 again uses device labeling to attempt to train the users to  
18 use the correct parts provided and has detailed electrical  
19 requirements to identify what these parts are and again does  
20 verification testing to assure that the parts that are  
21 specified work appropriately and are safe, again resulting  
22 in an acceptable risk level. Next slide, please.

23                   Another ubiquitous hazard these days is  
24 electromagnetic interference and this comes under the guise

1 of radio frequency, as well as electrostatic discharge.  
2 Potential risks are the monitor may malfunction, you may  
3 lose the signal or you may receive corrupt data. The  
4 manufacturer again uses IEC 60601 to address this, which  
5 treats the hazard as if it's temperature, pressure or  
6 humidity. So the monitor must function appropriately in the  
7 presence of these types of insults.

8           Clinical verification study of the signal chain  
9 integrity is performed to ensure that this actually happens  
10 in the real world. This is a small scale, what I would call  
11 an engineering study to show that the device functions  
12 safely. Again, the risk levels are deemed acceptable. Next  
13 slide.

14           Another hazard could be excessive surface  
15 temperatures, which lead to potential burns. Because this  
16 device doesn't have any surface components which deliver  
17 energy, there are no potentials for burns and the  
18 manufacturer has detailed design requirements to ensure that  
19 this is the case early in development of the product and  
20 verification testing to assure that during the life cycle of  
21 the product this doesn't happen. Again, appropriate design  
22 reduces the risk and there are no unacceptable risks  
23 remaining. Next slide, please.

24           Biocompatibility of contact materials. If the

1 materials cause an allergic reaction, this could obviously  
2 be a problem. The manufacturer uses ISO 10993, which is a  
3 standard for the biological evaluation of medical devices.  
4 It provides for both evaluation criteria and testing and  
5 provides a pass/fail indication of compatibility. The  
6 manufacturer has passed this and therefore the risk levels  
7 are deemed acceptable. Next slide, please.

8           Another large issue, particularly with home use  
9 devices, is use error due to some problem; perhaps the user  
10 doesn't adjust the belt properly, there's not adequate  
11 strength. The device may not collect the desired signal.  
12 The manufacturer has labeling to ensure that the device is  
13 appropriately used and has a clinical verification study to  
14 show that the user can effectively use the device. Again,  
15 this is not a clinical efficacy study. I would call it an  
16 engineering study to show that the device can be  
17 appropriately used and the manufacturer uses FDA guidance on  
18 human factors in trying to design their device so that it's  
19 as usable as possible. Again, appropriate design reduces  
20 the risk levels of an acceptable level. Next slide, please.

21           I have shown what the requirements are for  
22 assuring safety and effectiveness for each of the classes of  
23 devices. Particularly for Class II devices, special  
24 controls must exist to show safety and effectiveness. The

1 manufacturer has identified hazards, has evaluated the risks  
2 and has specified special controls to mitigate or control  
3 these risks to an acceptable level. The manufacturer has  
4 identified that group of special controls that assures the  
5 safety and effectiveness from an engineering perspective.

6 I'd like to ask at this time if there are any  
7 questions about the specific hazards that I've presented  
8 here, their associated risks or special controls used, or if  
9 there are any hazards which you might have identified which  
10 I have not addressed which you believe are of significant  
11 risk. Thank you very much.

12 DR. EGLINTON: Thank you. We'll have a slight  
13 change from the published agenda here so we'll go to break  
14 now, be back at 10:15 and we'll have an additional FDA  
15 presentation that's not on your agenda at that time. Thank  
16 you.

17 [Recess.]

18 DR. EGLINTON: Okay, let's go ahead and get  
19 started again. A slight alteration in the agenda, as we  
20 noted. Mr. Colin Pollard hopefully will enlighten us on  
21 some of the issues that have been raised earlier in the  
22 morning as to whether or not this is an appropriate  
23 consideration or topic for consideration.

24 MR. POLLARD: Thank you, Dr. Eglinton. Both Dr.

1 Eglinton and Dr. Yin thought I ought to make a few  
2 clarifying comments.

3           First of all, just to make it absolutely clear,  
4 this is a petition submitted by Corometrics and FDA, by  
5 statute, must respond to the petition. And in the interest  
6 of prudence, we thought it important to bring it before the  
7 panel to get their expert input on this.

8           In that regard the charge of the panel today is  
9 essentially to deal with the petition. There were comments  
10 from two previous speakers about relooking at how FDA  
11 approved the PMAs and its basis for the conclusions that  
12 were taken at those times and I would just point out to the  
13 panel that this is not the charge before the panel today.  
14 However, it's possible that some of the issues that prompted  
15 those kinds of concerns are issues that you would want to  
16 consider when you're looking at this petition.

17           I would also note that some of the most compelling  
18 evidence that was produced in the presentation was use of  
19 the device that is different from how it was used in those  
20 studies that supported the PMA, and I think that's important  
21 to note.

22           I'd also like to address a couple of the points  
23 that were made by another presenter in the open public  
24 hearing. First of all, there was the issue of protection of

1 PMA data and the use of the four-of-a-kind PMAs before FDA  
2 can consider data from a PMA.

3 I want to point out to the panel that you are not  
4 using data in the PMA. You're using data in the public  
5 domain. And particularly I think the two studies probably  
6 most likely referred to here, the study by Mou, et al and a  
7 study by Wapner, et al are from the published literature and  
8 FDA has the authority to consider that data in the context  
9 of this petition.

10 Really, the provision in 520(c) and 520(h) about  
11 four of a kind was intended to predict confidential  
12 information in a PMA and we're not talking about  
13 confidential information here; we're talking about published  
14 studies. So I would assure the panel that you have every  
15 reason to use that published data.

16 I would also like to point you to question number  
17 2 of the questionnaire, which again looks like this. We'll  
18 be going over it in detail. The petitioner went over it and  
19 we'll be going over it in detail. That question number 2  
20 asks, "Is the device for a use which is of substantial  
21 importance in preventing impairment of human health?"

22 I think really the question we're asking, we're  
23 asking this question of an adjunctive monitoring device and  
24 in that context, FDA made the assessment back in 1989, as I



1 to reclassify the device from Class III to Class II.

2           Firstly, and some of this is a reiteration, but to  
3 emphasize that controversy does continue regarding the  
4 appropriate use of the HUAM device. And I think, as a group  
5 of obstetricians and perinatologists and the public, we  
6 continue to need additional clinical studies to define both  
7 the appropriate use, the appropriate indications and the  
8 appropriate patient subsets for which to use this device.

9           Were the panel to reclassify the device from Class  
10 III to Class II, this would substantially reduce the future  
11 investigations being done. Certainly it would reduce the  
12 need to do an investigation by the petitioning company and  
13 likely by others in the future, and I think that would be a  
14 mistake, in view of the continued controversy.

15           Secondly, it's possible that a Class II assignment  
16 could potentially open a floodgate of increasing uses and  
17 indications. Currently there is really a very specific  
18 limited indication for the use of the device and I think  
19 moving it to a Class II classification would potentially  
20 make it a more easily broadened indication in the future,  
21 and I think that is of concern.

22           Thirdly, I'd like to come back and question the  
23 issue of the substantial importance in health. The FDA, in  
24 the past, has treated these devices as being of substantial

1 importance in preventing the impairment of neonatal and  
2 maternal health. This has been a factor in the early  
3 detection of preterm labor and thus the cervical dilatation  
4 issue and this has important ramifications which directly  
5 relate to health--the appropriate use or nonuse of  
6 tocolytics, as pointed out by Dr. Hauth in regard to the  
7 ACOG position, and those tocolytics have both risks and  
8 benefits. In addition, as Dr. Hauth pointed out, the  
9 appropriate use or nonuse of patient visits, both in the  
10 hospital or in the office.

11           And finally, there is the potential prevention of  
12 preterm birth and its consequences, which the device may  
13 have the utility of in a subset of patients.

14           So this petition states that the HUAM is not  
15 intended for a use which is of substantial importance in  
16 preventing impairment of human health and this is simply not  
17 true. The prevention and/or the detection of preterm labor  
18 is unquestionably of substantial importance in neonatal and  
19 maternal health.

20           Because of these reasons I believe we should  
21 remain with the Class III classification. Thank you very  
22 much.

23           DR. EGLINTON: Thank you.

24           Is there any discussion among the panel? Any

1 panel members want to make any other points before we move  
2 to Dr. Diamond's trek through the questionnaire? Anything  
3 anybody else wants to bring up?

4           Okay, Dr. Michael Diamond has consented to lead us  
5 through the questionnaire, which is actually our task at  
6 hand today.

7           At this point, for the first several questions,  
8 they're yes or no so I'll remain here. If we get to some of  
9 the later questions which require us to put some verbiage  
10 in, then I can try to capture some of those thoughts for  
11 evaluation by the group.

12           The first question is, "Is the device life-  
13 sustaining or life-supporting?" Not seeing anyone wanting  
14 to jump to give a response, it my thought the device is  
15 neither life-sustaining nor life-supporting unto itself. So  
16 in my consideration of the question, my answer would be no.

17           Are there members of the panel that would disagree  
18 with that, with checking box number 1 "no"?

19           I'll assume therefore that everyone agrees the  
20 answer is no and move on to question 2. "Is the device for  
21 a use which is of substantial importance in preventing  
22 impairment of human health?"

23           My response to this also was that in and of  
24 itself, as an adjunctive device utilized in trying to

1 identify preterm labor, that the device itself was not of  
2 substantial importance in preventing impairment of human  
3 health and I would check "no" for this.

4 DR. HILL: I guess that's always been the debate,  
5 a part of the debate that we've had. That is whether the  
6 use of the device will prevent, as one of the previous  
7 speakers mentioned, preterm birth and therefore have an  
8 impact on neonatal health.

9 I can see that question being answered "no," as  
10 you mentioned, but also being answered "yes" if you want to  
11 take the wider view.

12 DR. DIAMOND: I think it depends on--I would agree  
13 with you. I think it depends on the context in which you  
14 are viewing the question. Preventing premature birth is a  
15 means of preventing impairment of human health, if you look  
16 at it in that broad way. If you look at it, does this  
17 adjunctive device, using this adjunctive device, in  
18 combination with all the things that a clinician would be  
19 utilizing in order to minimize the risk of preterm birth, in  
20 that way of viewing it I would view the answer to the  
21 question as "no."

22 And I either have the advantage or disadvantage of  
23 not having been part of all but one of the prior discussions  
24 of this panel where a lot of the conversations that you

1 indicated went on took place.

2 DR. EGLINTON: I think the comparison might be an  
3 EKG monitor, an O2 sat monitor and a fetal heart rate  
4 monitor used at term are all Class II devices. I think  
5 that's the comparison to make. In other words, the answer  
6 is "no" for those devices and this is probably roughly  
7 comparable to those concepts.

8 DR. BLANCO: I guess I'd better speak up before we  
9 go any further. I think everybody on the panel knows about  
10 my belief that this is not a very useful device and actually  
11 is a device that initiates a cascade of intervention to the  
12 woman that results in things that can be life-threatening.  
13 And while we're asked not to address that issue as a panel,  
14 fortunately being a panel member and not an FDA employee, I  
15 sort of get to hold the mike until my chairman tells me to  
16 shut up.

17 So if you'll bear with me, since I don't want to  
18 go down this list and have everyone feel that I've  
19 acquiesced to these issues, I think that there is some  
20 impact from this particular product. And I think the issue  
21 is that unlike an EKG machine or any of these other things,  
22 what results from this particular reading of the instrument  
23 is questionable in nature and I think it's questionable as  
24 to whether it's a benefit or not, and that makes a big

1 difference.

2           So I'm not so sure that I would so easily dismiss  
3 that this machine doesn't have an impact on human health and  
4 would like to be on the record as such.

5           DR. CHATMAN: Is it not true that an EKG and the  
6 fetal monitor strip have the same kind of effect? Aren't  
7 there false positives associated with those?

8           DR. BLANCO: I'm not talking about false  
9 positives.

10          DR. CHATMAN: Aren't interventions done because of  
11 EKGs and fetal monitors that are inappropriate and  
12 incorrect?

13          DR. BLANCO: Do you think the EKG gives you  
14 information as to whether a patient is having a heart attack  
15 or not that you can rely on? Does it give you reliable  
16 information?

17          DR. CHATMAN: I guess the answer is sometimes.

18          DR. BLANCO: Well, I guess my answer would be I  
19 don't think the monitor gives you reliable information, so I  
20 think that's the difference.

21          DR. NEUMANN: I think one other item on the list  
22 of Class II devices that comes very close to this device in  
23 terms of its effect on health and health care is the home  
24 infant apnea monitor.

1           Fortunately, that's not a part of this panel's  
2 area to discuss but I think that's an example of where  
3 there's all kinds of conflicting information in the  
4 literature and there hasn't been a definitive nonflawed in  
5 one way or another clinical study to evaluate it, and yet  
6 that is still classified Class II.

7           DR. HILL: I assume at some point it was Class  
8 III, Colin?

9           DR. BLANCO: The infant apnea monitor?

10          DR. HILL: Just for our information, was the  
11 infant apnea monitor ever a Class III device?

12          MR. POLLARD: I'm not certain. I can check on  
13 that for you.

14          DR. WEININGER: Sandy Weininger with the FDA. I  
15 believe that the infant apnea monitor is Class II, let me  
16 say with 90 percent confidence, because it was the first  
17 device selected for a mandatory performance standard back in  
18 roughly 1985, 1982. So I believe it was Class II and always  
19 Class II.

20          DR. NEUMANN: And has that standard ever been  
21 approved?

22          DR. WEININGER: Can we talk about that later?

23          MR. POLLARD: I think the simple answer to that  
24 question is that FDA has found that promulgated regulatory

1 performance standards have been a fairly inefficient way to  
2 regulate products like this and special controls have very  
3 much taken their place. We rarely go to the regulated  
4 performance standard.

5 I would just reemphasize the point I was making  
6 right after we reconvened after the break. The question  
7 that you're asking here is a question that FDA, in essence,  
8 mostly answered back in 1989 because if you answer "yes" to  
9 this question, you're saying that the manufacturer of these  
10 products would then have to prove that they, in fact,  
11 prevented impairment of human health.

12 DR. HILL: And we decided not to do that.

13 MR. POLLARD: Right. And, like I say that issue  
14 was posed in early PMAs and essentially appealed to FDA and  
15 we, in essence, said that manufacturers of monitoring  
16 devices should not be required to make that--it's different  
17 if they wanted to make that product claim.

18 DR. BLANCO: However, I don't mean to interrupt  
19 you but the fact is you're asking for our opinion so I'm  
20 giving you my opinion and I think that should be a "yes" and  
21 that's how I will vote.

22 MR. POLLARD: I understand.

23 DR. EGLINTON: Diony?

24 MS. YOUNG: Colin, I'm glad that you brought up

1 the 1989 decision because as far as I'm concerned, I feel  
2 totally frustrated about this issue, the sort of parameters  
3 that we are put into here by having this device come up for  
4 reclassification and a device which, it seems from going way  
5 back, has not been demonstrated to be beneficial. But  
6 perhaps the 1989 decision that was made could be questioned  
7 as to whether that was the right decision.

8 I would also like to say that looking at question  
9 number 2, I would say that in general, the public and child-  
10 bearing women in particular probably have been given the  
11 understanding that this is something, this is a device that  
12 will help them to a better outcome, both for themselves and  
13 their baby.

14 So I feel that an answer "no"--I do not support an  
15 answer "no" on item number 2. I support a "yes" because I  
16 think that the public has that understanding and they're  
17 given that understanding from their caregivers.

18 DR. DIAMOND: Gary, if there are no other  
19 comments, do we go to vote on this question?

20 DR. EGLINTON: I'm open to a motion for a call to  
21 question here.

22 DR. DIAMOND: I would so move.

23 DR. EGLINTON: Okay, is there a second for a vote?

24 DR. DOWNS: Second.

1 DR. EGLINTON: Okay. Those who would like to vote  
2 "yes" on item 2, raise your hands, please.

3 MS. YOUNG: Am I allowed to vote at this point or  
4 not?

5 DR. BLANCO: I carry your vote.

6 MS. YOUNG: Thank you. We'll change it one day.

7 DR. EGLINTON: Those who would like to vote "no"?

8 All right. That seems to be a fairly clear  
9 majority for a "yes." Did we break any rules, Dr. Yin?

10 DR. YIN: No, sounds good to me.

11 DR. EGLINTON: Okay, question 3.

12 DR. DIAMOND: Question 3, "Does the device present  
13 a potential unreasonable risk of illness or injury?" We've  
14 heard so far this morning comments on some data and also  
15 some potential risk that might come about if the device is  
16 down-regulated and was able to be used in other situations.

17 The question, I guess, is do we end up thinking  
18 that this is an unreasonable risk of illness or injury? My  
19 response to that personally is that I do not think that that  
20 is likely to be the case and would suggest that the answer  
21 to that should be "no." I would think that appropriate  
22 controls can be put in place to minimize the risk, to be  
23 vigilant of who is utilizing the device and the manner in  
24 which they are utilizing it, the manner in which its use if

1 being promoted, in order to keep those risks to a minimum.

2 DR. BLANCO: Again it depends on how you view the  
3 device. It depends on whether you apply the issues that we  
4 applied to 2 or whether you're looking at the device. And  
5 yes, it's unlikely to cause an electric shock to the patient  
6 when you put it on their abdomen but what sequence of events  
7 does it trigger and are those sequence of events potentially  
8 dangerous to the patient?

9 I think that that's at the core issue of probably  
10 you voted on 2 and follows then down to 3, as well, I would  
11 think.

12 DR. EGLINTON: Ms. Domecus?

13 MS. DOMECUS: I just had a process question. If  
14 we've already answered "yes" to question number 2, haven't  
15 we, in effect, already denied the reclassification petition  
16 and do we need to go further?

17 DR. DIAMOND: Not as I read all the comments to  
18 the right. If we get to question 4--

19 MS. DOMECUS: But we've answered one of the four  
20 key questions "yes."

21 DR. DIAMOND: Number 4, if any of the answers is  
22 yes, then you jump to number 7. And depending on our  
23 response to number 7 to the right, a "yes" means it can be  
24 classified in Class II and "no" means go to Class III. I

1 don't think we've done that yet.

2 DR. EGLINTON: Diony?

3 MS. YOUNG: The Dyson report, which we heard about  
4 this morning and which is mentioned in one of our inserts  
5 from ACOG, did indicate--this hasn't been published yet but  
6 I understand it's about to be in the New England Journal of  
7 Medicine--that there were significantly, in one arm of the  
8 study, there were significantly more unscheduled hospital  
9 visits and consequently significantly more frequent  
10 nonbeneficial use of tocolytic agents.

11 Now, the manufacturer has told us that there have  
12 been no medical device reports or complaints with respect to  
13 their device, the use of their device, but I would say that  
14 this is questionable in view of this particular study.

15 So once again we're back to the controversy that  
16 we just don't have sufficient evidence. So again, that  
17 brings me to go back a little bit further to the position  
18 that the National Women's Health Network has taken and the  
19 American College of Obstetricians and Gynecologists has  
20 taken, that we need more studies.

21 DR. HILL: I agree. I believe that the device  
22 does not shock anybody when they use it but I do believe,  
23 looking at the use of the device over the past five, seven  
24 years since we've met and debated this issue for hours, that

1 there is an opportunity for overuse of tocolytic drugs. I  
2 don't think there's any question about that. It may not be  
3 the device's fault but that's what happens. And certainly  
4 we cannot say that--in fact, we can say that the use of  
5 tocolytic drugs, any of them, have caused maternal and  
6 neonatal death. There's no question about that. That's  
7 been shown in numerous articles in the literature.

8           So I believe that the answer to number 3 has to be  
9 "yes."

10           DR. DIAMOND: The converse, though, sort of the  
11 assumption that you're making is that if you're going to  
12 utilize these devices, it'll identify contractions and  
13 individuals will then go into labor and delivery, be  
14 evaluated, undergo whether it's intravenous therapy or  
15 whether it's being placed on tocolytics and that those  
16 sometimes will be in patients that otherwise wouldn't need  
17 it and they may have some deleterious effects.

18           There is also the potential, through the use of  
19 the device, to identify individuals that are not contracting  
20 adequately or who, after fluid-loading, are able to stop  
21 contracting and be able therefore to avoid having to go into  
22 labor and delivery, beginning that entire cascade of events  
23 which potentially can lead to unnecessary or inappropriate  
24 tocolytic agents in certain situations.

1                   So I think there are both sides of that. What  
2 I've just described, to my knowledge, has not been  
3 substantiated in clinical trials but at this point I'm not  
4 familiar with the Dyson study and have not had the  
5 opportunity to read that, so I would also put that in the  
6 category at this point of being not a published trial that  
7 we can greatly consider at this time because we don't have  
8 that advantage.

9                   DR. HILL: I think that the Dyson study, although  
10 it's not been published, has been presented after peer  
11 review at our meetings and I believe the results. And the  
12 results showed that patients who were on the monitor had  
13 more frequent visits to labor and delivery and there was  
14 more use of tocolytics in that group of patients. I cannot  
15 ignore that.

16                   DR. DIAMOND: I guess I would take issue with the  
17 idea, and it's a comment made earlier, that because  
18 something is presented as an abstract at a meeting, that  
19 that has undergone peer review. Trying to fit information  
20 into a small box, often a lot of the methods, a lot of the  
21 inclusion/exclusion criteria aren't able to be placed on it  
22 and until the entire manuscript in its entirety is able to  
23 be reviewed, you can often get very misleading information  
24 about a paper, what it contains and what its ultimate value

1 is going to be from just an abstract.

2 DR. BLANCO: Let me, without addressing the Dyson  
3 study whatsoever, what you bring up is actually a benefit.  
4 What you're saying is well, there could be a benefit because  
5 this might identify folks who don't need this intervention  
6 and therefore these people might benefit because they might  
7 get intervened.

8 I'm not going to argue with that. I don't think  
9 that that really happens. I think this identifies more than  
10 it gives you the assurance that you don't have to intervene,  
11 but I think that that's a benefit and that's not what the  
12 question is asking.

13 What the question is asking is is there a  
14 potential for unreasonable risk of illness or injury. So I  
15 think that the issue, and I totally agree with Wash, is does  
16 this precipitate a cascade that results in interventions  
17 that have significant consequences for the patient? And the  
18 answer is yes.

19 And you don't even have to do the cascade. If you  
20 get identified as having too many contractions, your life is  
21 turned upside down. If you're a working woman you're going  
22 to be put at bedrest. You're going to be maintained at home  
23 whether you need it or not. Your whole life changes. If  
24 you have a family you're now told that you really can't get

1 up and do anything with your family, whether you needed it  
2 or not.

3 I think it has a lot of consequences in women's  
4 lives for being an object where there is a tremendous amount  
5 of controversy whether there's real benefit or not. So I  
6 think that there's clearly demonstrated adverse effects that  
7 can occur and questionable issues of benefit.

8 DR. EGLINTON: Can I interject here, maybe to move  
9 this on? George just said there's clearly been a clearly  
10 demonstrated--let me disagree with that. The only thing  
11 that's been clearly demonstrated is what's been published in  
12 peer review literature.

13 What the Dyson study randomized women to was  
14 weekly nursing contact or daily nursing contact or daily  
15 nursing contact with monitor. And in an unpublished study  
16 that's been described, and we've all heard it described,  
17 women in the latter category had more visits.

18 However, in the Wapner study, which has been  
19 published, and in the Corwin study, which has been published  
20 subject to peer review, that was not the case. And  
21 importantly, in those two studies women were randomized to  
22 monitor or no monitor. Nobody got extra nursing care.  
23 Monitor, period or not monitor. Which is the issue? This  
24 has been tangled up for 15 years in this. Are we talking

1 about nurses or monitors?

2 In the Dyson study, done at 35 clinics throughout  
3 the Northern California Kaiser Permanente group, who knows  
4 what all the dynamics were that brought these women into  
5 labor and delivery? In these other two studies it was just  
6 the monitor--no technician talking to the patients, no nurse  
7 talking to the patients, just the monitor. And in those  
8 studies there was no increase in number of hospital visits  
9 in the monitor arm.

10 So the monitor doesn't cause increased hospital  
11 visits. Maybe some nurse interpretation or some nursing  
12 interaction over the telephone with the patient causes  
13 increased visits but in the only two published studies of  
14 just monitor randomized against not monitor, there's no  
15 increase in hospital visits.

16 DR. HILL: But in the real world, in the real  
17 world when this device is used, the patient uses the device  
18 and she talks to a nurse and they, together, decide what is  
19 going to happen. And what can happen is that they can go  
20 into labor and delivery.

21 DR. EGLINTON: Dr. Perlmutter?

22 DR. PERLMUTTER: I'm not a lover of home uterine  
23 activity monitoring devices. However, I think we have to go  
24 back to what the criteria were for this device to have been

1 approved. It was for monitoring alone in those women who  
2 have had preterm births. Women who have had preterm births  
3 are as nervous as can be about whether or not they're going  
4 to go into preterm labor again and I think that's a  
5 different group than what we're talking about in the general  
6 population.

7 I think we have to bring this back to what the  
8 initial approval was and it was for straight home uterine  
9 monitoring without nursing intervention for those women who  
10 were at extremely high risk for another preterm delivery.

11 DR. EGLINTON: Is there a call for a vote? Anyone  
12 care to move for that?

13 DR. DIAMOND: I'll so move.

14 DR. EGLINTON: Is there a second?

15 DR. PERLMUTTER: Second.

16 DR. EGLINTON: Those who would care to vote yes on  
17 item 3, please raise your hands.

18 Those who would like to vote no on item 3, please  
19 raise your hands. Five to two again. Thank you.

20 DR. DIAMOND: Question 4 asks, "Did you answer yes  
21 to any of the above three questions?" and the answer to that  
22 is yes. The instructions on the right tell us then to go  
23 down to item number 7.

24 Item 7 is, "Is there sufficient information to

1 establish special controls to provide reasonable assurance  
2 of safety and effectiveness? If yes, check the special  
3 controls needed to provide such reasonable assurance for  
4 Class II."

5 So the question is is there sufficient information  
6 to establish special controls to provide reasonable  
7 assurance of safety and effectiveness?

8 MR. POLLARD: Just to clarify, because there is a  
9 supplemental data sheet that goes sort of hand in hand with  
10 the questionnaire, I would just like to highlight that there  
11 are some aspects of those that essentially dovetail, in  
12 particular, questions 4, 5, 6, 7 and 8 sort of come together  
13 and sort of dovetail with question number 7, the question of  
14 whether or not special controls would be sufficient to  
15 address the panel's concerns about safety and effectiveness.

16 DR. EGLINTON: But the way Dr. Diamond and I think  
17 the rest of us are interpreting this form, we don't get to 5  
18 and 6. We go 4 to 7.

19 MR. POLLARD: That's correct. I'm not disagreeing  
20 with that. You're absolutely right. You go to question 7  
21 of the questionnaire and I'm just pointing out that on the  
22 supplemental data sheet you'll see there are questions that  
23 essentially dovetail with that question 7.

24 DR. EGLINTON: So we need to enter information on

1 question 5 or on item 5 on the supplemental data sheet  
2 related to our "yes" answers for questions 2 and 3? Is that  
3 what you're prompting us for?

4 MR. POLLARD: Yes. In essence, questions 4, 5--

5 DR. EGLINTON: We don't want to talk about 5.

6 DR. DIAMOND: 5 on the supplemental data form is  
7 what Colin is saying.

8 DR. EGLINTON: All right.

9 MR. POLLARD: 7 and 8 correspond to--

10 DR. EGLINTON: Okay, item 5.

11 DR. DIAMOND: At this point, Gary, what I might  
12 do, with your permission, is if we have a blank one of  
13 these, come on up and maybe try to have the committee help  
14 us fill out what we consider appropriate things to put in  
15 each of those boxes, rather than using ones that have been  
16 prepared.

17 DR. EGLINTON: Right.

18 DR. YIN: Dr. Eglinton, while we're waiting around  
19 for the forms, can I confirm Colin's statement that the  
20 infant apnea monitor, it is a pre-amendment Class II device.

21 DR. EGLINTON: So it never was a Class III device?

22 DR. YIN: Never. It was a pre-amendment Class II.

23 DR. EGLINTON: So we have a blank we could use  
24 for--we probably don't need to write on number 4. Can we

1 agree that--under 4 is indications for use, restricted to  
2 the current indication, which is indicated for use in  
3 pregnancies in women who have suffered a previous preterm  
4 birth, which is the current single indication for use?

5 DR. HILL: Yes, it has to be.

6 DR. EGLINTON: Does anyone want to alter that?

7 DR. BLANCO: Not today.

8 DR. EGLINTON: So we don't need to alter 4. So  
9 it's just item 5. I think Dr. Blanco elaborated the first  
10 risk to health presented by the device. We're going to fill  
11 in, on the supplemental data sheet, item 5, and that is  
12 headed "Identification of any risks to health presented by  
13 the device." I think you led the assault on question 2.

14 DR. BLANCO: So lead the assault on question 5?

15 DR. EGLINTON: Really what goes in the blank is  
16 your objection for question 2.

17 DR. BLANCO: Actually my first objection will be,  
18 and I think the first issue, is that the realistic  
19 utilization of the device currently falls predominantly  
20 outside of the very specific indication even, and I'd like  
21 to have that put down. I think the common usage is not  
22 narrowed, at least in my experience, and I don't have a  
23 study--maybe I should do a survey and that would be  
24 interesting data to collect.

1                   But I think that the device has not been  
2 necessarily utilized in patients that have had prior--I  
3 think if I remember the exact wording is prior preterm  
4 delivery is what it was utilized for and now it's basically  
5 utilized by many people just for uterine contractions during  
6 a pregnancy, which are a perfectly normal occurrence of  
7 pregnancy.

8                   So I think that that's an adverse effect that I'm  
9 concerned about and I think it's a risk to the health of the  
10 patients that they're being so put on these things. Did I  
11 kind of make myself clear what I mean?

12                  DR. EGLINTON: Dr. Yin, is that what we can put in  
13 5, that we object to the fact that it's used off-label more  
14 than it's used on-label?

15                  DR. YIN: Yes, that would be one of--yes.

16                  DR. BLANCO: Dr. Chatman asks how do we know that?  
17 You know, I can't quote you a study but it is certainly  
18 widely utilized in many regions and I would ask around the  
19 panel, the obstetrician-gynecologists, whether their  
20 experience in the area is not that it's used off-label more  
21 than it's used on-label. I see Dr. Eglinton shaking his  
22 head yes. I would suspect Wash.

23                  DR. YIN: Conversely, I'd like to hear the comment  
24 on when it's used properly.

1 DR. BLANCO: Yes, we're going to those. I haven't  
2 finished yet.

3 Any other comments on that?

4 DR. DIAMOND: I guess the comment I would make is  
5 I'm not sure that's really--it's important to note as  
6 clinicians but I would question whether that's really what  
7 we're here for today and the purpose of trying to put in  
8 what the indications are. How we practice medicine with  
9 devices and drugs that are already approved for use then  
10 becomes a clinical decision, as opposed to governmental  
11 regulation of what devices or what drugs should be approved.  
12 Those are dichotomous and although they're related, they are  
13 such.

14 DR. BLANCO: Well, I think that you might look at  
15 it that way but I think that that's based on your initial  
16 assumption that the benefits have been demonstrated and are  
17 present for other things, for the particular product. If  
18 your initial assumption is not that, then I don't think your  
19 argument follows logically.

20 DR. DIAMOND: I'm not here to second-guess what  
21 our predecessors did, many of whom are here.

22 DR. BLANCO: I'm not here to second-guess them,  
23 either, but I will make my opinion and my thoughts clear.

24 DR. CHATMAN: Somebody said a long time ago, and

1 maybe the perinatologists can help us out on this, that  
2 uterine contractions are the most crude method of  
3 determining preterm labor and maybe in the indications, as  
4 Dr. Blanco has suggested, some of that should be included,  
5 as well, that this is not to be used in patients who don't  
6 have a history of preterm delivery. I mean, I think that's  
7 a very important consideration.

8 DR. DIAMOND: The indications, as I understand it,  
9 do specify patients with previous preterm delivery. It does  
10 do that.

11 DR. EGLINTON: Ms. Domecus?

12 MS. DOMECUS: Aren't we supposed to be answering  
13 these questions only as it relates to the proposed  
14 indications statement on the reclassification petition and  
15 if so, can we really discuss the risks of off-label uses,  
16 even though that may be a real concern? In terms of a  
17 matter of course, I'm not sure that--

18 DR. EGLINTON: I suspect Mr. Pollard is going to  
19 educate us.

20 MR. POLLARD: Yes, and I think I really wanted to  
21 speak exactly to that point. I don't think FDA has any  
22 problem with the panel expressing its concern about off-  
23 label use of the device and we certainly do have some  
24 regulatory tools to follow up on that, although some of that

1 aspect is, in fact, in the area of clinical practice.

2 I think, on the other hand, in the context of what  
3 we're doing here today and the petition, off-label use is  
4 not an adverse effect of the use of the device. In that  
5 context it's not the same thing.

6 DR. BLANCO: It wouldn't be able to be used if the  
7 device wasn't approved.

8 MR. POLLARD: Yes, but that's true of hundreds of  
9 devices.

10 DR. EGLINTON: Dr. Yin?

11 DR. YIN: You may consider that an adverse effects  
12 if the panel agrees with you, but that's why I'm asking  
13 conversely, what's the proper use? What do you think?  
14 Because you need to have both sides, okay? If you want to  
15 consider it as a risk, you may do that because we're not  
16 going to curtail you, what you think, but you need to  
17 address conversely if it's properly used, what is the  
18 adverse effect?

19 DR. BLANCO: So those are other issues, other  
20 things.

21 DR. YIN: Those are the major issues that we need  
22 to hear.

23 MR. POLLARD: And in FDA, looking at this  
24 petition, we have to look at the petition as it's presented

1 for its intended use, for its specific indication for use  
2 and the adverse effects that are directly attributable to  
3 use of the device.

4 DR. EGLINTON: But then going further, Dr. Blanco,  
5 your other objection was when it is used for its intended  
6 use, the result is that an increased number of women are  
7 exposed to tocolytic agents?

8 DR. BLANCO: Yes.

9 DR. EGLINTON: So that's your second risk to  
10 health.

11 DR. BLANCO: That would be the second.

12 DR. DIAMOND: And that's as it relates to the  
13 indication that we have here or that's in relation to the  
14 Dyson study, which--

15 DR. BLANCO: No, no. I don't want to talk about  
16 the Dyson study necessarily. I think that the way that I  
17 would word it, and I think Wash would agree, is that even  
18 when used as per indication, it initiates a cascade that  
19 represents significant risk of danger to the patient, and  
20 that's a risk factor. And that cascade includes hospital  
21 admission, tocolytics, steroid administration, all the other  
22 things that are commonly done.

23 I think the other issue would be it triggers a  
24 cascade of disability, bedrest, inability to function as

1 normally they would.

2 MS. YOUNG: Psychological soft outcome measures  
3 because the list here are sort of hard outcome measures and  
4 very often one doesn't think about the psychological-social  
5 effects on the child-bearing woman. These are quality of  
6 life issues, as well, and I think that the anxieties that  
7 are caused by a woman being put onto this device  
8 unnecessarily perhaps, we need to be concerned about those  
9 issues, psychological effects, as well, and I see those as  
10 adverse effects.

11 DR. DIAMOND: Psychological issues?

12 DR. BLANCO: Psycho-social.

13 DR. HILL: Do you have the increased drug use?

14 DR. DIAMOND: I have meds.

15 DR. HILL: That's fine.

16 DR. DIAMOND: I will repeat my comment of a couple  
17 of minutes ago, which goes to the converse of the psycho-  
18 social issues of disabilities in that it has the potential  
19 to minimize all those things by identifying that  
20 contractions are not occurring and that they're able to be  
21 stopped and thereby minimizing all those same sorts of  
22 issues. That can go both ways, I think.

23 Other items for number 5?

24 MS. YOUNG: Yes, if I can just answer that, it

1 goes go both ways. The same example with electronic fetal  
2 monitoring--the anxiety and use of ultrasound, sonograms.  
3 The psychological-social issues can go both ways but I think  
4 both ways have to be recognized.

5 DR. DIAMOND: Number 5 also has a special hazards  
6 to health section. Does anybody want to hear--

7 DR. BLANCO: I'm not sure. Maybe we can get some  
8 guidance. Is what you're asking for us to detail these  
9 things that we've said? I'm not quite sure what else is  
10 wanted down here. Where's Colin?

11 MR. POLLARD: I think the answer to that question,  
12 you're talking about specifically just section 5 or the A,  
13 B, C, D?

14 DR. BLANCO: The A, B, C, D.

15 MR. POLLARD: In particular, in fact, we are  
16 looking for more specific delineation. The part up above is  
17 more generalized. The A, B, C, D below is directly device-  
18 related.

19 In other words, if, for instance, to sort of maybe  
20 paraphrase some of the discussion before, inappropriate  
21 therapy as a result of device use, then in the column across  
22 you would identify what characteristics of the device do you  
23 believe are associated with that particular hazard.

24 I think actually one of the reasons why it's

1 designed this way is to essentially differentiate what are  
2 device-attributable hazards from issues that relate to uses  
3 of the device that are sort of beyond what we would expect  
4 the manufacturer to show, the issues that fall more in the  
5 area of clinical practice and management of patients and  
6 this cascade that you were referring to earlier.

7 DR. DIAMOND: Does anyone have anything to go into  
8 this category?

9 DR. EGLINTON: Maybe A would be exposure to  
10 tocolytic agents needlessly and the characteristic would be  
11 detection of clinically meaningless contractions. I'm  
12 trying to paraphrase what George is talking about.

13 DR. BLANCO: I think that's well put.

14 DR. EGLINTON: Tocolytics and steroids, maybe, and  
15 the characteristic is detection of clinically meaningless  
16 contractions.

17 DR. HILL: Or contractions not associated with  
18 preterm labor.

19 DR. EGLINTON: I was trying to fit it in the box.

20 DR. HILL: Clinically meaningless bothers me. I  
21 was trying to be--

22 DR. DIAMOND: I'll put it on quotes.

23 DR. HILL: I was trying to be more gentle.

24 DR. BLANCO: How about on the disability? How can

1 we word it? I think the same issue of detection of however  
2 you want to put the quotations, "also results in alterations  
3 of a woman's lifestyle that may result in disability"?

4 MS. YOUNG: Quality of life.

5 DR. BLANCO: Quality of life, thank you.

6 DR. DIAMOND: So on the column on the left you  
7 want me to put disabilities?

8 DR. BLANCO: Alterations in quality of life. And  
9 the right one would be the same, whichever one Dr. Eglinton  
10 and Dr. Hill agree to.

11 DR. EGLINTON: Use Dr. Hill's wording on the  
12 second one, but you have to write really small.

13 DR. HILL: Detection of uterine activity not  
14 associated with preterm labor.

15 DR. DIAMOND: How about just inappropriate  
16 diagnosis?

17 DR. HILL: Sure.

18 DR. DIAMOND: Uterine activity not associated with  
19 labor?

20 DR. HILL: Labor is fine.

21 MR. POLLARD: Dr. Eglinton, if I might comment,  
22 the column on the right, which is listed "characteristics or  
23 features of device associated with the hazard" is really  
24 focussed on what is it about that device, specifically in

1 terms of its design characteristics. I'm very concerned  
2 that we're kind of getting away from what the device  
3 manufacturer is actually expected to do or show versus some  
4 larger, more global concerns that the panel obviously has  
5 about widespread use of home uterine activity monitors.

6 DR. HILL: It detects uterine activity and that's  
7 the issue--detection of uterine activity. If you want us to  
8 say it like that, but some of that uterine activity could be  
9 ignored.

10 DR. CHATMAN: You're saying the interpretation of  
11 the uterine activity is the problem and not the device  
12 itself?

13 MR. POLLARD: I'm not trying to say what is the  
14 problem. I'm just saying that in terms of the panel using  
15 this information, in terms of FDA using this information, we  
16 want to be able to look at that column on the right and say  
17 what do we need to know about that device and what it can  
18 do?

19 DR. DOWNS: Why not just say "false positive"?

20 DR. BLANCO: That sounds fine.

21 DR. DIAMOND: So for both.

22 DR. BLANCO: It seems that that's what they want,  
23 so yes.

24 DR. NEUMANN: But it's false positive what? If

1 you're talking about detection of uterine contractions, does  
2 it detect a uterine contraction that has not occurred?

3 That's what I would think a false positive would be.

4 DR. BLANCO: False positive preterm labor is  
5 really--

6 DR. NEUMANN: Can we say that?

7 DR. DOWNS: Do we have to say it? Does it matter?  
8 If they're called in to the hospital they take action, for  
9 whatever screening mechanism they have to take action.

10 DR. BLANCO: I think that that's what we're  
11 saying. It's the mere fact of what the machine does is what  
12 generates the problem. I mean it's the fact that it shows  
13 uterine contractions. And how can you correct it? Well,  
14 don't put the machine on the belly, okay?

15 DR. HILL: Or if you put it on the belly, we may  
16 need to do something else with that information, and that's  
17 where we are. We don't know. We may need to do something  
18 else to differentiate those who need it versus those who  
19 don't, other therapy.

20 DR. BLANCO: If we want to get philosophical, if  
21 you'll pardon me, and please stop me but I think the whole  
22 issue that we're based at is that we have a tremendous  
23 amount of concern about what's the validity of this very  
24 often discussed and very studied but yet very controversial

1 with varying results on a variety of studies.

2           While it's nice to say, "Well, we've got the slots  
3 that we have to fill," the reality, what we're saying to the  
4 FDA is we're uncomfortable with the utilization of this  
5 device because there is so much controversy and so much  
6 contradictory data with it that it really isn't as easy as  
7 saying, you know, "Should it be a III or a II?"

8           I think the whole question of its benefit is at  
9 the core of the whole problem and we can fill these things  
10 with everything that you want but it won't change the facts  
11 that there is a major question in a large group of  
12 physicians, clinicians of all sorts and patients, whether  
13 this is really of benefit and whether it should be out there  
14 or not. And I think that that's what we're reflecting.

15           Now, we can sit here and try to play around and  
16 refine the wording to make it fit your slots but I think if  
17 you miss the point of what we're saying, we're not doing  
18 anybody any good.

19           So I guess that's why--I don't know how much more  
20 detail you want to get it. I think you know what a  
21 significant number of people think and I think that as more  
22 and more data is being gathered, we can try to refine that  
23 but it still becomes a very difficult issue. I think there  
24 are going to be problems even when the Dyson study gets

1 published, which it eventually will. There will be  
2 questions, just what you're saying--the nurse intervention,  
3 did that do it? Is there something about the HMO set of  
4 patients in the West Coast that might have played some role  
5 in that?

6           There are all kinds of issues that we're bringing  
7 up and I don't think you're going to be able to pigeon-hole  
8 it into this. I think we need to look at the health of  
9 women and what's being done to them on a very widespread  
10 procedure and I think we really need to say--I mean, are we  
11 really doing something here that benefits womankind,  
12 mankind, or are we just basically trying to fill lines on  
13 sheets of paper?

14           That's how I view it and my feeling is the core of  
15 the issue is whether there's any benefit to this machine or  
16 not or whether we're just simply fooling ourselves.

17           Personally, I enjoyed the presentation, if you'll  
18 allow me one more digression and then I'll stop, I enjoyed  
19 the presentation from the company who has the monopoly on  
20 the particular item that's already been approved and I  
21 appreciate his telling us, you know, a million this company,  
22 two million here, but I'd like to have him tell us how many  
23 millions in profits they make from this particular  
24 instrument and see how it compares and whether it was a good

1 investment or not. I'll stop there.

2 DR. EGLINTON: That was a sidebar, right?

3 DR. BLANCO: Yeah, that was a sidebar.

4 MS. YOUNG: Gary, can I add to that sidebar?

5 Seeing we've gotten onto money, when one looks at the  
6 numbers, just one woman, an incredible number of women who  
7 are put onto this device and how much it costs for that  
8 woman to be put onto that device for two hours each day for  
9 I don't know how many weeks or months, and if you add up all  
10 of that--I mean, just look at the wastage, the potential  
11 wastage of health care dollars. I think that that's  
12 something that the FDA has to consider, as well.

13 DR. CHATMAN: Going back to Dr. Diamond's point.

14 DR. EGLINTON: Only as that relates to her  
15 psychological health and well-being because the FDA can't  
16 really be concerned about anybody's money. But the woman's  
17 own productive capacity and psychological health and well-  
18 being are affected by the two hours a day of monitoring and  
19 unscheduled visits to the hospital and so forth, telephone  
20 calls and this and that and the other thing. I'm sure  
21 that's what you're referring to.

22 DR. DIAMOND: I guess I don't disagree with almost  
23 anything that Dr.--

24 DR. BLANCO: That's okay. You don't have to

1 agree.

2 DR. DIAMOND: But I'm not sure that they're really  
3 germane to what we're trying to provide our recommendations  
4 for today. We've been asked to make recommendations about a  
5 particular submission, to change the way in which a device  
6 is regulated. That is the charge that is before us. That's  
7 ultimately what's going to come from today's session.

8 I don't think what's going to come from today's  
9 session is these things we've put up here, all of which, I  
10 might add, to my knowledge are not yet any of them proven by  
11 anything in the peer-reviewed literature, but I don't think  
12 what we're going to end up recommending at the end of the  
13 day is that these go on the device labeling for the devices  
14 that currently exist and are in practice.

15 So the question is, I think, where should these  
16 devices be? They are currently available. How should they  
17 be regulated is really the question that is before us and  
18 not these other issues which, while not unimportant, are not  
19 the issue for now.

20 So as I look at this, these are again very  
21 important issues but not ones that are related to the device  
22 itself and talk to whether the device falls into the  
23 category III or category II level. They are applicable at  
24 both but not things that, number one, are device-specific

1 and not number two, things which talk to an adverse effect  
2 directly attributed to the device. It's more how we  
3 interpret and how we utilize the information that comes from  
4 the device, not from the device itself, which I think is  
5 usually the way this is filled out.

6 DR. EGLINTON: I think probably Colin, you can  
7 correct me but I think probably, or Dr. Yin, if this is the  
8 best we can do as a panel of advisors, if this is the best  
9 we can do at filling in this form, then the FDA will be  
10 somewhat handicapped or will not be able to rely very much  
11 or put much weight on this form, if this is the best we can  
12 come up with.

13 DR. YIN: That's not true because you have to  
14 remember even the Class II products, FDA can require  
15 clinical study. So what you're telling us, that maybe the  
16 only way to resolve it, there's nothing wrong with the  
17 device by itself, sitting here, but based on Dr. Weininger's  
18 presentation, you really have no problem with the device  
19 characteristics itself, right?

20 So your problem lies with the clinical. So you're  
21 just being just fair and honest and your own views. My  
22 personal view is for FDA, you state what you believe. What  
23 I'm hearing sitting here is that you really have no problem  
24 with the device, this device sitting here and not used for

1 that purpose. You're happy. Just let it sit here. Nothing  
2 wrong with the device. And you can easily say that. Then  
3 you're honest and fill in the blanks the way you believe.

4 DR. HILL: But I think that's what you hear us  
5 saying over and over again.

6 DR. YIN: Right.

7 DR. HILL: The device isn't going to shock  
8 anybody.

9 DR. YIN: No, we're not going to have any problem.

10 DR. HILL: But it's the use of the device. That's  
11 what we've been asked to do.

12 DR. YIN: Right, related to its indications.

13 DR. BLANCO: That's very concisely put.

14 DR. NEUMANN: I do think there's one issue that I  
15 was concerned about in Dr. Weininger's presentation and that  
16 is I have no difficulty understanding it's not going to  
17 shock anyone and that you shouldn't pour conductive fluids  
18 into the device but I didn't hear anything about whether the  
19 device indeed measures uterine contractions and it seems to  
20 me somewhere along the line that ought to be demonstrated.

21 DR. YIN: That's very good to put in, the very  
22 specific question 5, A.

23 DR. HILL: Hasn't that been demonstrated by the  
24 bulk of literature that's out there in the public,

1 forgetting about looking at other PMAs? I do believe that's  
2 been demonstrated very early. I can remember we sat here or  
3 someplace and said there's no argument that the device picks  
4 up uterine activity, period.

5 DR. NEUMANN: But we need to have that for  
6 specific implementations of this particular concept. The  
7 literature shows that people from Reynolds on, since 1948 I  
8 think was his first description of the device, have been  
9 able to detect uterine contractions and even, in some of the  
10 earlier work, look at the propagation of uterine  
11 contractions from the fundus to the lower segment. But that  
12 doesn't mean that company X's device that is up before the  
13 panel for review, in fact, works the same way.

14 DR. HILL: Agreed.

15 MR. POLLARD: And, Dr. Neumann, that kind of  
16 concern, that's certainly something that you can identify as  
17 a hazard that has an associated characteristic of the device  
18 that can be addressed as a special control with a clinical  
19 study that shows the device, in fact, can pick up  
20 contractions. That's a different kind of study, of course,  
21 than the studies that we were looking at earlier this  
22 morning that were looking at clinical efficacy. It's a  
23 focussed study to look at the function of the device as a  
24 measurement tool to pick up uterine contractions.

1 DR. EGLINTON: So does that concept go here as one  
2 of these A, B, C, D, at this point?

3 DR. YIN: It fits perfectly for one of the A, B,  
4 C, D's.

5 DR. DIAMOND: Ability to identify contractions?

6 DR. YIN: Mm-hmm.

7 DR. EGLINTON: Dr. Perlmutter.

8 DR. PERLMUTTER: But I thought that work had  
9 already been done. I thought that was done as part of the  
10 original PMA submission.

11 DR. DIAMOND: I think the issue is, though, that  
12 if this is reclassified that there may be companies in the  
13 future that will come up and try to apply for 510(k)  
14 approval and one of the things we want to make sure for this  
15 new device that comes up is that it has these  
16 characteristics, these capabilities.

17 DR. PERLMUTTER: I thought that was implicit in  
18 the reclassification, that any device that was comparable  
19 had to be comparable, including--

20 DR. YIN: That's why he wants to include it--

21 DR. PERLMUTTER: Okay.

22 DR. NEUMANN: What I was concerned about is that  
23 the way things have gone this morning it's just been  
24 comparable in terms of safety issues that, as far as I'm

1 concerned, don't really exist, and the real question is does  
2 it measure what it's supposed to? And no one's said  
3 anything about that.

4 DR. EGLINTON: So this is the right place for  
5 that, Dr. Yin?

6 DR. YIN: Yes.

7 DR. EGLINTON: To specify that the device that Dr.  
8 Perlmutter designs in her garage and submits for a 510(k)  
9 approval actually does detect contractions?

10 DR. YIN: Right.

11 DR. PERLMUTTER: George is going to help me.

12 DR. BLANCO: I'm with you.

13 DR. DIAMOND: So this should probably be inability  
14 to identify contractions would be the hazard.

15 DR. BLANCO: Right.

16 DR. NEUMANN: Or the ability to identify something  
17 that is not a contraction and calling it one.

18 DR. DIAMOND: I think that would fall within this.

19 DR. PERLMUTTER: What's the characteristic, then?

20 DR. DIAMOND: Probably along the lines of what you  
21 were saying, to meet the standards that have been previously  
22 established, I would think.

23 DR. EGLINTON: It's insensitive or overly  
24 sensitive, one or the other.

1 DR. PERLMUTTER: Or both, Gary.

2 DR. EGLINTON: Right, that's what I mean. It's  
3 either insensitive or it's overly sensitive. It has false  
4 positives and false negatives in detecting contractions. It  
5 has to be sensitive and specific.

6 DR. DIAMOND: Sensitive and specific. It's not  
7 really a hazard.

8 DR. BLANCO: You probably need to reword it if you  
9 want to be more specific. The component applied to the skin  
10 must be sensitive and specific in its ability to pick up  
11 uterine contractions.

12 DR. CHATMAN: I think Dr. Neumann was saying that  
13 we don't know if this thing actually works, and that's what  
14 the hazard is. We have no knowledge to document the fact  
15 that this thing doesn't work, and that's the hazard.

16 DR. BLANCO: I think they want us to compare it to  
17 others that have shown that. There's new technology. Now  
18 there's more of a hypothetical--if there's new technology  
19 that comes in on how you can measure uterine contractions so  
20 that they, rather than a plunger or the ring or whatever,  
21 that somebody comes up with an electromagnetic way of  
22 thinking that they do it, then you want to be able to make  
23 sure that it really does measure contractions.

24 Isn't that what you were saying, Mike?

1 DR. NEUMANN: Yes, I think that's a good point.

2 DR. DOWNS: I would say it's inability to detect  
3 and the characteristic of the device would be the false  
4 negative rate.

5 DR. DIAMOND: I don't know about false negative  
6 but it needs to--

7 DR. DOWNS: False negative rate is the  
8 characteristic of the device that affects its inability to  
9 detect uterine contractions appropriately.

10 DR. PERLMUTTER: How about failure of transducer  
11 to be sensitive and specific?

12 DR. HILL: Yes. That's what we're saying. That's  
13 what we want.

14 DR. EGLINTON: Is there anything else anybody  
15 wants to add?

16 MS. DOMECUS: Dr. Eglinton? I did want to clarify  
17 one point. On question 5 on the supplemental data sheet  
18 we're asked to identify any risks to health but the question  
19 we answered on the reclassification petition asked us  
20 whether or not we thought that the device presented any  
21 unreasonable risk of illness or injury.

22 I wanted to focus on the word "unreasonable." I'm  
23 wondering if we answered yes to that question just because  
24 we meant that there were risks or do we really mean

1 unreasonable risks? I interpret unreasonable risks to mean  
2 risks that outweigh the benefits. Was that really what we  
3 were saying? I think I know what Dr. Blanco would say but  
4 is that what the rest of the panel was saying?

5 DR. EGLINTON: Dr. Hill said the same thing in  
6 terms of the exposure of women to tocolytic agents, which  
7 occasionally results in a woman winding up in an intensive  
8 care unit on a ventilator. That's an unreasonable risk.

9 DR. NEUMANN: Can I ask why that never gets  
10 reported as an MDR? Is MDR just strictly for technical  
11 hardware problems? It seems to me that's something that  
12 ought to be reported.

13 MS. DOMECUS: Well, the MDR reported the device  
14 probably and if she's in intensive care because of the  
15 agent, that's a drug and probably the drug manufacturer  
16 would have to report that. So it may not be something that  
17 the device would pick up.

18 DR. NEUMANN: But it's the result of a device. If  
19 I can use the infant apnea monitor example again, there have  
20 been numerous lawsuits over the years for the monitor  
21 failing to operate properly, which resulted in many in these  
22 cases in death of the infant and while that's a much more  
23 extreme case than what we're talking about here, it seems to  
24 me it's the same kind of issue.

1 MS. DOMECUS: It probably just depends on how it's  
2 recorded in the hospital. It's probably recorded in the  
3 hospital as a reaction to a drug, and that way it doesn't  
4 get back to the manufacturer of the device, even though it's  
5 somewhat related.

6 DR. YIN: Or they may report it as a problem with  
7 the ventilator. Who knows?

8 DR. EGLINTON: So do you think we're ready to go  
9 to question 7 on the questionnaire?

10 DR. DIAMOND: I think so. "If device is an  
11 implant or is life-sustaining or life-supporting and has  
12 been classified in a category other than Class III, explain  
13 fully."

14 I don't think we'll have any disagreement that it  
15 is not an implant. Then the question becomes is it thought  
16 to be life-sustaining or life-supporting, and I don't think  
17 we should have disagreement on that. The answer should be  
18 no.

19 So I would suggest that the answer to this is "not  
20 applicable."

21 Then number 8, if I can move on, Gary?

22 DR. EGLINTON: I think what we need to do,  
23 Michael, is go back to the questionnaire, to question 7 on  
24 the questionnaire before we get down to the bottom here for

1 our recommendation.

2 DR. DIAMOND: I think you're right, absolutely.  
3 I'll go ahead and read question 7. "Is there sufficient  
4 information to establish special controls to provide  
5 reasonable assurance of safety and effectiveness?"

6 DR. EGLINTON: And if the answer is yes, it's a  
7 Class II item and then we need to fill in what those special  
8 controls are, if I understand this correctly.

9 DR. DIAMOND: I think clearly there is evidence by  
10 which we can establish special controls to go over many  
11 aspects of what we've been talking about. I guess the  
12 question will end up being: Are there any areas where we're  
13 not able to put in controls which would be able to provide  
14 reasonable assurance of safety and effectiveness?

15 DR. EGLINTON: Maybe I could ask a question of the  
16 FDA here. I think the greatest discomfiture of most  
17 clinicians who argue about this and the panel members is  
18 that patients are enrolled in home uterine activity  
19 monitoring, number one, who do not satisfy the criteria for  
20 the approval of the three devices that have been approved,  
21 meaning this technology has been approved only for women who  
22 have suffered a prior preterm birth and the vast majority of  
23 the patients are enrolled "off-label." That causes a great  
24 deal of heartburn, even for those people who agree with the

1 concept that it has shown benefit in that special category  
2 of patients.

3           So perhaps if we checked patient registries and  
4 required, since these monitors are all in the hands of one  
5 corporation--is that true, so far?--if there were a  
6 requirement that any patient enrolled had to be enrolled on  
7 a registry and that registry submitted to the FDA daily,  
8 weekly, monthly, quarterly, annually, some kind of  
9 compliance follow-up, then the FDA would embark upon some  
10 enforcement action if other patients are being enrolled?

11           I mean, you can't enroll a patient on home uterine  
12 activity monitoring as a private physician. There's no way  
13 to do that in your office.

14           MS. DOMECUS: If the purpose of the registry,  
15 though, is so FDA can take action--you'd be asking them to  
16 take action against the physician for making the decision to  
17 use the device and I don't think they can do that.

18           DR. EGLINTON: No, it's against the company for  
19 enrolling the patient into the service when she does not  
20 satisfy the entry criteria.

21           MS. DOMECUS: I'm not aware that the company is  
22 involved in the enrollment. Is that how it works?

23           DR. EGLINTON: Yes.

24           DR. DIAMOND: The company has to be involved

1 because they have to monitor the tracing. They or their  
2 subsidiary, somebody has to know who they are.

3 DR. BLANCO: That actually is a very intriguing  
4 idea because when you think about what we talked about, we  
5 talked about the linkage between the cascade that the  
6 monitor starts and we talked about how this isn't reported  
7 as a complication of these things and we don't have a good  
8 idea of all the patients that have been put on these  
9 monitors, how many ended up going post-dates, how many ended  
10 up proving that they didn't need it, as opposed to how many  
11 did it prevent and how many went into premature labor and  
12 delivered preterm anyway.

13 So it might actually be a much better approach to  
14 require some patient registry or performance standards or  
15 some sort of follow-up as to what's going on with all these  
16 folks that are being put on, and look at some parameters  
17 that would address our issues of disability--you know, how  
18 are we impacting on women's lives and the issues of the  
19 initiation of other drugs and other interventions and how  
20 that all falls out.

21 So I think, although I had not thought of it at  
22 first, I really think that that might be the way to really  
23 gain a lot more insight into what's happening with these  
24 machines and what the outcomes are for these patients. So I

1 would be very much in favor of suggesting something like  
2 that. I don't know the rules and whether that can be done  
3 for products that have already been approved through the  
4 PMA. I guess that will be up to the FDA. But certainly  
5 there will be new products coming down the line and that's  
6 why we have this request. So at least we can get some  
7 information from something.

8 DR. EGLINTON: I don't know whether that would  
9 apply to any previously approved devices. I'm guessing if  
10 this particular device were to be--these devices, any device  
11 in this category, if this is reclassified as a 510(k)  
12 device, so then any manufacturer who brings another device  
13 for a 510(k) approval would be required to, for example,  
14 keep a patient registry and submit that on a schedule  
15 required by the FDA.

16 DR. NEUMANN: But the manufacturer that has  
17 already an approved device does not have to do this? It  
18 seems to me that, even though we're not supposed to talk  
19 about it, that has economic implications.

20 DR. BLANCO: We can talk about it as an extra  
21 burden on certain manufacturers.

22 DR. DIAMOND: But they wouldn't have had to go  
23 through a PMA route.

24 MS. DOMECUS: Exactly. I'm not sure actually how

1 the laws would apply there but it would be something to  
2 consider if the people who've had to go through the more  
3 burdensome PMA process would now, as a result of this  
4 meeting, end up having their competitors who have come later  
5 go through the easier 510(k) process and, on top of it, the  
6 PMA manufacturers had to pick up the extra burden of the  
7 patient registry. That would be a tough pill to swallow and  
8 maybe that's how it's got to go. I'm not sure how the  
9 regulations would apply.

10 DR. DIAMOND: Probably the issue today is if we're  
11 thinking of recommending changing it to a Class II agent  
12 that it would be our recommendation that registries be  
13 established so that any devices that end up being approved  
14 through this mechanism in the future, that information will  
15 be available.

16 DR. HILL: You're talking about some degree of  
17 post-market surveillance?

18 DR. DIAMOND: Yes, in essence.

19 DR. EGLINTON: Is there any other discussion?  
20 Anybody want to weigh in for or against that concept?  
21 Anybody want to vote against it? Is there a call for a  
22 question or is there general acquiescence that we could  
23 check the box called "patient registries"?

24 DR. BLANCO: I'm not quite sure what the

1 circumstances is. I mean, Wash has brought up post-market  
2 surveillance. I'm not quite sure what the difference is  
3 between a patient registry and post-market surveillance. I  
4 think the idea would be to look at what are the outcomes of  
5 the women that are being put on this to be able to, without  
6 being overly burdensome in terms of--I mean, I don't know  
7 that you have to do it every week or whatever, but at some  
8 point look at women who have been put on this and look at  
9 what impact has that made on their lives and what impact has  
10 that made on their outcomes. That, I think, would be  
11 tremendously valuable.

12 MS. DOMECUS: I think there's a big difference in  
13 terms of burden on the manufacturer between a patient  
14 registry and post-market surveillance. The biggest burden  
15 is that post-market surveillance can be on a subset of the  
16 patients that are using the device, versus the patient  
17 registry, as I understand it, would have to be on everybody.  
18 That's a huge administrative task for manufacturers to  
19 undertake.

20 DR. EGLINTON: I think that's really Dr. Blanco's  
21 point, that it should not be a huge administrative task  
22 because there shouldn't be that many patients exposed to the  
23 device.

24 DR. BLANCO: I agree.

1 DR. EGLINTON: I'll guarantee you that in Northern  
2 California Kaiser Permanete group there were not 2,422  
3 patients who had a previous preterm birth in the Dyson  
4 study. They were somehow called high risk for preterm labor  
5 and delivery but they had not all had a previous preterm  
6 birth because that's a boatload of patients.

7 DR. BLANCO: I think the beginning of it, and  
8 maybe we went over it too fast, is that I think one of the  
9 special controls that I think we're talking about is this  
10 issue of the off-label, that we very much--okay, these  
11 things have been approved and that's where they should be  
12 used, not off-label.

13 So I think that that goes along as a special  
14 control that we would recommend. Is that not right, Gary?

15 DR. EGLINTON: That's what I was suggesting in  
16 response to your point.

17 Is anybody troubled by calling it patient  
18 registries? I agree it's some kind of post-market  
19 surveillance. I'm not enough of an FDA somaticist,  
20 bureaucrat, technocrat to know the difference between post-  
21 market surveillance and patient registries.

22 DR. YIN: I think there's a great difference.  
23 Post-marketing is not like you register every patient but  
24 this one is every patient has to be registered, provided

1 they have a previous preterm.

2 DR. BLANCO: Could I ask maybe--we've heard from  
3 Cindy from industry--could we ask the two industry  
4 representatives that presented before us to address that  
5 issue, if they want to?

6 DR. YIN: You may not want to put them on the  
7 spot.

8 DR. EGLINTON: It's not a challenge. It's an  
9 opportunity to say something to respond on this issue if you  
10 wish.

11 MS. DOMECUS: I would encourage them to do so.  
12 This is a big undertaking.

13 DR. BLANCO: Let me tell you why I would encourage  
14 you to say something. We would like to know what are the  
15 difficulties of doing one versus another one because we're  
16 probably going to end up voting one versus another one. The  
17 more information we get from everyone, the better decision  
18 we hopefully would make for women and for you.

19 DR. HILL: I'd like to know from the FDA the  
20 difference between post-market surveillance and a patient  
21 registry.

22 DR. YIN: Patient registry, it would be every  
23 patient, you have to have certain records. Post-market  
24 surveillance is saying, "Let's take a subset." You can

1 design the study entirely differently. Patient registry is  
2 everyone.

3 DR. HILL: So post-market surveillance could be to  
4 take those patients who had a previous preterm birth and see  
5 the impact of the device?

6 DR. YIN: And you may not say that everyone must  
7 enroll. You may say to take 500 of each and follow for how  
8 long. But patient registry is everyone.

9 DR. HILL: Every patient who receives the device?

10 DR. YIN: Right, with that indication.

11 DR. BLANCO: What about looking at side effects,  
12 major side effects that follow patients who have used this  
13 product?

14 DR. YIN: You can design that. First of all,  
15 either one, you can design to gather information like that  
16 but with the patient registry, every patient must be  
17 registered. Then you still ask for those outcomes. And for  
18 the post-marketing, the same way, but you don't have to  
19 register every patient. You can still ask for outcomes.

20 DR. EGLINTON: We are coming up on a break in just  
21 a few minutes here and we can have some industry comment  
22 after the break if you all want to spend a little more time,  
23 get your heads together, talk a little bit more during the  
24 break, then offer some comment.

1 Dr. Perlmutter?

2 DR. PERLMUTTER: Lillian, one of the things that  
3 you sort of mumbled through there was that with both the  
4 patient surveillance and the post-marketing surveillance  
5 that this would only be for preterm labors.

6 DR. YIN: That's what I thought, that you are not  
7 going to monitor for off-label because you are saying that  
8 this product is--as I understood, the reclassification, even  
9 Corometrics, they're asking for the same indication and the  
10 indication they had on the piece of paper is exactly the PMA  
11 approval, right?

12 DR. DIAMOND: But the thing I think I heard Dr.  
13 Blanco saying and Dr. Hill saying is that they'd like to  
14 know all the patients on whom it's utilized, not just the  
15 ones with this indication, and they'd like to have a  
16 registry of all uses perhaps.

17 DR. YIN: I don't think you can do that because  
18 you are telling each company--they are using your device--"I  
19 want you to do a patient registry." You cannot go to Kaiser  
20 Permanente and say, "I want you to do that." That's not  
21 FDA's purview.

22 DR. EGLINTON: Kaiser Permanente can't do it.

23 DR. YIN: FDA cannot--

24 DR. EGLINTON: But the point is--let me clarify

1 this for the people who are not clinicians and don't know  
2 how this works--if you want to put a patient on home uterine  
3 activity monitoring you have to call Matria after you've  
4 called her managed care company and gotten an authorization  
5 number; then you call Matria and you say, "I want to put the  
6 patient on home uterine activity monitoring." A Matria  
7 nurse talks to the patient, takes the equipment to her house  
8 and teaches her how to do it and she starts making phone  
9 calls every day. It's a company issue. It's not a Northern  
10 California issue. It's not a Kaiser issue. It's a company  
11 issue.

12 DR. DIAMOND: What you're saying is that the  
13 company currently is intimately involved with every patient  
14 who--

15 DR. EGLINTON: Every single patient.

16 DR. DIAMOND: It's not something like an  
17 ultrasound machine that goes to the hospital and the company  
18 has no idea how it's used. Any patient that goes on this  
19 device, the company knows who that person is because the  
20 data is going back to the company for them to monitor it.

21 DR. EGLINTON: And there might be, in some local  
22 marketplace, there might be another company, perhaps  
23 Corometrics in another marketplace outside of where I  
24 practice, that has some contracts with some managed care

1 providers and they can do the same thing, but still it's  
2 that company who owns the device we're interested in. That  
3 company has the patient. That company controls the patient  
4 information. That company has every piece of information  
5 about that patient and it has every patient and knows the  
6 indications for which the physician suggests that that  
7 patient be enrolled in monitoring.

8 DR. YIN: We are here to regulate those companies.  
9 Like company A, they come up with a product and company B,  
10 company C. We are telling each company, "You monitor those  
11 patients. We want a registry of your device, of the  
12 patients for your device."

13 I cannot go to a third party that they buy devices  
14 from A, B, C and use it interchangeably. We are not going  
15 to go to that company that is providing three different  
16 types. We are only regulating the company that we're  
17 telling them--they're making the device.

18 DR. DIAMOND: But there is no third party.

19 DR. YIN: I don't know.

20 DR. DIAMOND: My understanding is there is no  
21 third party.

22 DR. YIN: Right now there's one company. They  
23 bought all the products. Suppose this is in Class II, so  
24 another company may be able to provide two or three

1 products. So we are telling the manufacturer of each  
2 product to do the surveillance or to patient registry.

3 DR. EGLINTON: Or whoever buys that company.

4 DR. YIN: Right.

5 DR. EGLINTON: That's the concept we're talking  
6 about.

7 DR. YIN: Okay.

8 DR. EGLINTON: If one company buys seven other  
9 companies, we're saying the obligation transfers with the  
10 purchase of that other company. That's what Dr. Blanco  
11 wants.

12 DR. NEUMANN: What happens if some sort of care  
13 company was established that bought devices from a  
14 manufacturer and was responsible for the care of the  
15 patients but did not manufacture the device and did not have  
16 to follow the good manufacturing all of the other FDA  
17 concerns?

18 DR. YIN: We always go back to the manufacturer.  
19 You see, if I'm manufacturer A and I sell the products to  
20 you, you're not a manufacturer but FDA would come back to me  
21 and say, "You sold that and I want you to monitor him. I  
22 want the patient register from me." So I have to go to you  
23 and get that.

24 DR. NEUMANN: To the manufacturer?

1 DR. YIN: They come to me. FDA will come to me.  
2 I'm the manufacturer. I have a factory and I'm making the  
3 devices and I sell to you. Then FDA comes and says,  
4 "Lillian, I want this patient registry provided to me." So  
5 it's up to me to get it.

6 DR. NEUMANN: So no matter what happens, if we  
7 decide that we want a patient registry, we'll get it?

8 DR. YIN: Provided I am able to do it.

9 DR. HILL: But only for the indications for which  
10 the device was approved?

11 DR. YIN: I hope so.

12 DR. DIAMOND: Why is that? I don't follow that  
13 part. Why, if one of the two companies that's here today  
14 has a registry of every patient in whom it's being utilized,  
15 why would we only want to have a registry--if they have a  
16 list of all the patients in which it's being utilized, why  
17 would we only want to have a registry of the patients with  
18 these indications?

19 DR. YIN: But those are off-label use.

20 DR. HILL: But you don't have any way of knowing-  
21 -right now you have no way of knowing. We want you to have  
22 a way to know.

23 DR. BLANCO: That's part of the information that I  
24 think we need to have.

1 DR. DIAMOND: The off-label use, as I understand  
2 it, is not illegal. In and of itself, there's nothing wrong  
3 with that. It may place me, as a practitioner, at greater  
4 liability risk but it is not something that's illegal or a  
5 problem.

6 DR. YIN: I'm willing to go back and check with  
7 our general counsel but I can be very sure that if it's off-  
8 label use, how can I require patient registry? Because FDA  
9 says, "This is how it should be used." And if you're using-  
10 -see, even the drug study--they don't put all those  
11 patients' names for the non-label use.

12 MS. DOMECUS: I think that what Dr. Yin is trying  
13 to say is that if a patient registry is required, I think  
14 that there will be a burden on the manufacturer to prevent  
15 off-label use. Is that what the panel is asking or does the  
16 panel just want to collect information on how often off-  
17 label use occurs and what kind of follow-up data? Or are  
18 you trying to place the burden so that the manufacturer will  
19 be in a position where they have to not allow off-label use?  
20 That's what I think, if we have to document it, that, in  
21 effect, will be what happens.

22 DR. EGLINTON: Could we clarify something here?  
23 Does anybody know of an independent manufacturer who  
24 manufactures these devices and then sells them to a home

1 health care service?

2 DR. YIN: Yes, we have the companies here.

3 MR. COWART: Tim Cowart from Matria. Several  
4 companies. You've got Advanced Medical. I believe they're  
5 located in Connecticut. You've got Biomedical Equipment.  
6 They're located, I believe, in St. Louis.

7 You've got HomeView, also on the West Coast. They  
8 way they've set up basically is they sell to distributors or  
9 hospitals. They set up their own little monitoring program.  
10 So the ability to collect that data is nonexistent at that  
11 point.

12 DR. EGLINTON: Have those monitors been through  
13 the PMA process?

14 MR. COWART: No, I don't believe they have. They  
15 have been through the 510(k) process. The way it basically  
16 has worked is the physician, as you have described, calls  
17 in, says, "I have a patient to be put on your service," and  
18 the prescription is written. At that point the company  
19 basically either advises them, "We can't do this," or  
20 basically provides the service.

21 DR. EGLINTON: But what company provides that  
22 service?

23 MR. COWART: In that particular scenario that I've  
24 just described it would be, say, if I sell to you as a

1 hospital and you set up your own program it would be you  
2 that would receive the prescription. It would be you--

3 DR. EGLINTON: So the hospital, in that model, the  
4 hospital is running a service?

5 MR. COWART: That's correct and if the device is  
6 put in the Class II category, that's the likely scenario  
7 you're going to have.

8 DR. EGLINTON: But these devices--I'm confused  
9 now--these devices were approved for what?

10 MR. COWART: But term labor at this point under  
11 the premarket 510(k) process, as a Class II device.

12 DR. EGLINTON: Right. They were not approved for  
13 this use.

14 MR. COWART: That's correct but those devices  
15 still being used.

16 DR. EGLINTON: It makes me wonder why we're  
17 spending all these hours of all these hard-working people  
18 struggling with this one concept for one device to be  
19 approved for this indication. Why bother?

20 DR. YIN: We did approve three PMAs for that  
21 particular indication.

22 MR. COWART: Well, the way it was described it was  
23 a labeling indication for that particular use and the  
24 distinction was basically focussed upon term versus preterm

1 use and the fact that there were questions of effectiveness.

2 DR. EGLINTON: Right. But of the three devices  
3 that have been approved through the PMA process, with the  
4 indication being use in preterm patients who have had a  
5 previous preterm birth, are those manufacturers free-  
6 standing manufacturers who sell their devices to a service?

7 MR. COWART: Originally yes but through mergers,  
8 no.

9 DR. EGLINTON: That's what I'm getting at. There  
10 is no free-standing manufacturer with an approved device.

11 MR. COWART: With a PMA-approved device.

12 DR. EGLINTON: With a PMA-approved device for this  
13 indication.

14 MR. COWART: For this one indication, but there  
15 are several others for the other indication and there's been  
16 really no distinction in the marketplace affording that  
17 particular distinction of whether this device is approved  
18 for this use or this device is approved for that use.

19 DR. EGLINTON: Thank you.

20 Would this be an appropriate point to take a 15-  
21 minute break to get lunch set up? Then we can come back and  
22 convene. Let's say about 25 minutes after 12:00.

23 [Whereupon, at 12:05 p.m., a lunch recess was  
24 taken.]

## 1 AFTERNOON SESSION

2 [12:30 p.m.]

3 DR. EGLINTON: Okay, can we get started again  
4 here? We would like to offer some opportunity for some  
5 industry response, commentary, without interrupting you in  
6 mid-swallow. You could go second.

7 MS. FOUTS: Maria Fouts again with Corometrics  
8 Medical Systems. I guess you wanted to know information  
9 from the perspective of the manufacturer, what our opinions  
10 are about post-market surveillance and patient registries?

11 With respect to patient registries, as far as our  
12 experience, we've not been required to do any patient  
13 registries and we don't do patient registries for any of the  
14 devices that we manufacture right now.

15 Just to give you an example of the types of  
16 devices we manufacture, perinatal monitoring systems, infant  
17 apnea monitors, adult types of critical care monitoring  
18 equipment.

19 In terms of post-market surveillance, we do post-  
20 market surveillance in terms of device tracking for the  
21 infant apnea monitoring lines that we have and this is not  
22 an overly burdensome thing for us.

23 But I want to go back and make a point about  
24 patient registries. Although the current Class III devices

1 right now that are on the market for home uterine activity  
2 monitoring is really restricted to just Matria, Corometrics  
3 is not--unlike Matria, Corometrics is not a manufacturer and  
4 a service provider and we've not considered becoming a  
5 service provider.

6           The example would be the study that we sponsored  
7 with Dr. Dyson, the Kaiser study, in that Kaiser Permanente,  
8 they set up their own service program. If we ever go into  
9 that type of market, we'll probably adopt the same thing.

10           So in terms of that example, we think patient  
11 registry is a good and valid idea, especially to maintain  
12 the restricted indications for use. But as far as  
13 implementation from a manufacturer's standpoint, we've not  
14 addressed that.

15           DR. EGLINTON: Thank you.

16           MR. HUEY: I'm Ray Huey from Corometrics Medical  
17 Systems. I have a question. With respect to the intent of  
18 the patient registry system, would that be to put the onus  
19 of the responsibility on the manufacturer that the device  
20 was used on-label and to prevent it from not being used off-  
21 label? In other words, we would have to know virtually  
22 immediately when a device was prescribed for use and make  
23 sure that it was being prescribed properly? Is that the  
24 concept that we're working towards here?

1 DR. BLANCO: He's looking at me so I guess he  
2 wants the loudmouth to answer.

3 I think the concept that makes, for me, the  
4 patient registry or post-market surveillance interesting is  
5 that it's a way to gather information of what happens to  
6 these patients--yes, to some extent who gets put on and who  
7 doesn't get put on and what really does happen out in the  
8 real world.

9 I don't know how many patients have been put on  
10 this but I would estimate it certainly has to be in the  
11 hundreds of thousands, if not in the millions. We're  
12 arguing in this great study of 2,400 and the data is  
13 probably out there already. If not, we need to look at  
14 that.

15 So I think it's a multi-issue. How often is it  
16 used according to indication, as opposed to off? What does  
17 happen to these people when they use this particular  
18 procedure? What is the rate of complications that occur  
19 following these things? What's the success rate? What is  
20 the rate of actually having preterm births anyway, of people  
21 who go term, post-term, whatever?

22 I think it's the ability to be able to track a  
23 very controversial and very contradictory area of medicine  
24 and gather the information in a very widespread way that

1 will really answer the questions: Are we doing something  
2 beneficial for the patient or should we basically put the  
3 machines over here and let them lie and not ever put them on  
4 anybody's belly?

5 Does that kind of answer your question?

6 MR. HUEY: That answers my question but that's  
7 more along the lines of a study, as opposed to a requirement  
8 of a manufacturer imposed by the FDA in its jurisdiction.

9 From my perspective as a manufacturer, patient  
10 registration, if we were required to register patients for  
11 the purpose of demonstrating that the device was not used  
12 off-label would not be workable.

13 MS. DOMECUS: Dr. Blanco, what I hear you asking  
14 for also is a study and it basically sounds like you're  
15 asking for a study of the safety and effectiveness of the  
16 device, which I don't think falls into the category of  
17 special controls. And if you want those questions answered  
18 in the form of patient registry, you're basically talking  
19 about a study population that's your entire marketed device  
20 population.

21 DR. BLANCO: Well, teach me what a patient  
22 registry is for in a category II device.

23 MS. DOMECUS: Maybe FDA can give some examples of  
24 where it's been used but I thought the purpose was things

1 like cardiac pacemakers, so if you find out there's a  
2 problem, you can track people and find out who has those  
3 pacemakers and do something about it. It isn't really  
4 supposed to be--I don't think, and maybe FDA can comment--a  
5 clinical study to address safety and effectiveness  
6 questions. And maybe those questions you're asking could be  
7 answered in a subset of patients.

8 DR. EGLINTON: I was the one who suggested the  
9 patient registry first when I saw it on the form here. My  
10 concept, the reason I suggested it was an opportunity for  
11 the FDA to enforce some compliance issues. And  
12 conceptually--I don't know the law. I don't know how the  
13 law works but my concept would be that whoever owns that  
14 monitor is required to maintain a registry of every time it  
15 is used and is required to forward that to the FDA in some  
16 time period, whatever is required. It's probably quarterly  
17 or monthly or semi-annually, something like that. Whoever  
18 owns that monitor has to respond to the FDA. Every time a  
19 patient has that monitor applied, the register is filled out  
20 and on some time frame, the FDA gets that piece of paper.

21 MS. DOMECUS: So you're just interested in use  
22 information, not safety and effectiveness data on those  
23 patients who have off-label use?

24 DR. EGLINTON: Correct. When is the technology

1 applied? Tell me every patient on whom you applied that  
2 technology.

3           Now, that means that would apply to the actual  
4 instrument. Every instrument has a serial number and  
5 there's a registry, a log for that instrument, and such logs  
6 exist, I'm sure, for other instruments. The mechanism of  
7 control is the serial number on the instrument as it leaves  
8 the factory. Whoever owns that instrument has to fill out  
9 that log. It might be a home health care agency who has  
10 bought three manufacturers. It might be a hospital that  
11 buys instruments from a free-standing manufacturer. But  
12 whoever owns that instrument, in my model, would have to  
13 respond to the FDA with a list of every patient who is  
14 exposed to that technology.

15           MS. YOUNG: I understand from Dr. Yin that it also  
16 includes outcome data on the individual patients. My  
17 question was going to be: Does it?

18           DR. EGLINTON: I don't mean just her name and  
19 medical record number. I mean a register of their clinical  
20 course. The data elements on the registry, I assume, would  
21 be specified by the FDA and would be as we recommend.

22           DR. YIN: Yes, as you recommend.

23           MS. DOMECUS: Dr. Yin, can the FDA require a  
24 registry of the service or the hospital or can they only

1 require that of the manufacturer?

2 DR. YIN: I think we normally regulate  
3 manufacturers.

4 MS. DOMECUS: Right. And so if no manufacturer is  
5 actually getting involved directly with the patient, I don't  
6 know if this--

7 DR. EGLINTON: As I said, I don't know if that  
8 can be implemented. I am assuming if we say that this  
9 technology has the potential to cause great harm and as a  
10 requirement of unleashing it on the public that whoever owns  
11 this technology must keep a record of all the patients  
12 exposed to it, I'm assuming that's legal. There has to be  
13 some parallel.

14 If you put a pacemaker in somebody, that's device-  
15 tracking. You track that device forever. This isn't  
16 implanted but what some members of the panel are suggesting  
17 is it leads to great harm in some cases, so it's somewhat  
18 analogous.

19 DR. YIN: But one thing that I must caution you,  
20 though, this is a few years ago; one manufacturer told me  
21 that patient registry is extremely expensive. In order for  
22 it to be well done it's very expensive because each patient,  
23 you have a list of even 10 questions to answer and it has to  
24 be done correctly. It's very expensive.

1 MS. DOMECUS: And if you want outcome data you're  
2 going to have to continue to follow the patient and follow  
3 them if they move or go to a different doctor. It can be  
4 quite complex, depending on what information you have.

5 DR. EGLINTON: There will be lost data in any  
6 registry. That's true but that's--I don't think we need to  
7 spend our time worrying about the exceptions. Most patients  
8 don't move once they've entered preterm labor.

9 Any other discussion on that?

10 DR. STANZIANO: I'm Gary Stanziano from Matria  
11 Health Care.

12 I just wanted to clarify one thing. Matria is in  
13 a rather unique situation in terms of being--I won't say  
14 accused but more or less accused of manufacturing a home  
15 uterine activity monitoring device and also providing the  
16 service. That really wasn't by design. That pretty much  
17 came about as a number of mergers and business decisions  
18 were made.

19 In fact, the former Healthdyne System 37 home  
20 uterine activity monitor, which is a Class III approved  
21 device, actually is made by Healthdyne Technologies, which  
22 is a wholly and separately owned company. We just happened  
23 to purchase that monitor from Healthdyne Technologies. They  
24 are actually the manufacturer, so it has nothing to do with

1 me and my department and nursing structure or anything.

2           Because of a merger, we do have the PDS, Genesis  
3 and the Carelink CarePhone, which we, as Matria, say we do  
4 manufacture but honestly, those devices are used in spotty  
5 places right now. They're really not our system of  
6 preferred choice to manufacture or get involved with.

7           So really the relationship right now is mostly  
8 with Healthdyne Technologies, a separate company, and that  
9 is kind of the present. That's not to say in the future, if  
10 this requirement was made, that business, the rest of the  
11 industry might structure things differently. In fact, we  
12 might restructure differently and put things more along the  
13 structure of what Corometrics has right now and get those  
14 two things divested--the manufacture and the service.

15           If anything, it seems like having this requirement  
16 of surveillance and patient registry, in a way, would  
17 restrict some of the trade on this device and that Matria,  
18 and I believe Corometrics would agree with this, is probably  
19 in the best position to do this. I mean, we do have patient  
20 data as a result of our service provider side. We do  
21 collect outcomes at a very significant cost, and I know you  
22 don't want to hear our troubles, our financial problems and  
23 costs but it is a burden that certainly the manufacturer,  
24 Corometrics or Healthdyne Technologies, would not be willing

1 to do and if that was the absolute requirement, perhaps  
2 would not enter into the market because of that.

3 But as the entity that probably has the best  
4 chance of doing a patient registry, we still do not support  
5 it as a company. I don't think it will serve a gatekeeper  
6 function, if that is the intent. The gatekeeper function is  
7 really controlled by the prescribing physician. That's for  
8 him to work out with the medical community, his practice and  
9 the payor.

10 We really don't get indications right now from the  
11 physician and Healthdyne Technologies certainly is not aware  
12 of them, on why the patient was placed on the service. We  
13 have an idea in total, as we look at all our patients in  
14 retrospect, what some of their risk factors are but we do  
15 not get involved with specifying the exact indication.  
16 That's between the physician and the insurance companies.

17 We also, just to reiterate--case managers at the  
18 insurance companies--just to reiterate, we do feel that  
19 Class II reclassification would open up the device for  
20 widespread use and there would be even less of a chance of  
21 collecting any of this data.

22 DR. EGLINTON: Thank you.

23 Any other comment on this?

24 Would anyone care to move that we vote yes for

1 patient registry?

2 DR. DOWNS: I move we have a patient register.

3 DR. EGLINTON: Second?

4 DR. BLANCO: Second.

5 DR. EGLINTON: Those favoring yes for patient  
6 registry, please raise your hands.

7 I think that's everybody. Any opposed or  
8 abstaining? Okay, thank you.

9 Any other special controls anyone might want to  
10 suggest--post-market surveillance, performance standards,  
11 device tracking, testing guidelines or any other special  
12 controls someone might want to put in?

13 DR. DIAMOND: There is a series of general  
14 guidelines that FDA has regarding use of machines that have  
15 electricity, which I think we'd want to incorporate into  
16 special controls. There are also similar guidelines with  
17 regard to patient and clinician instructions, controls  
18 related to device design and also controls regarding the  
19 portions of the device that come in contact with the  
20 patient.

21 I would think we probably would want to suggest  
22 that the general guidelines that apply in all those  
23 categories be ones that would be included under ones that  
24 we'd want to list here as special controls.

1 DR. BLANCO: I would agree with that. I also  
2 wonder if Michael's suggestion about making sure we're  
3 measuring uterine contractions, I guess that would be  
4 included as one in there, as well.

5 DR. DIAMOND: I am tempted to put here "ability to  
6 accurately, sensitively and specifically identify  
7 contractions."

8 DR. EGLINTON: Dr. Weininger had some comment on  
9 that. Apparently that's already built in implicitly but Dr.  
10 Weininger, go ahead and educate us, please.

11 DR. WEININGER: Sandy Weininger, FDA.

12 The design controls--quality systems regulation  
13 and the design controls in specific require the manufacturer  
14 to identify the clinical requirements and design and develop  
15 and test his device to ensure that the device meets those  
16 clinical requirements.

17 So I already have the ability to go into a  
18 manufacturer and say, "What is your device supposed to do  
19 from a clinical perspective? How do you translate that into  
20 engineering specifications? How do you ensure that the  
21 device you have built achieves those engineering  
22 specifications and how do you validate--that is, how do you  
23 ensure that the requirements that you have specified in  
24 front are what the device delivers to you?"

1           So that's what the design controls gives me  
2 currently. You can specify components of that--for example,  
3 device requirements, performance requirements, something to  
4 that effect. But those specifications are already required  
5 of the manufacturer.

6           DR. DIAMOND: As I've heard people talk, we want  
7 to make sure you can do exactly what you just said. So what  
8 I hear you saying is that we do not need to write anything  
9 down on this line under "other."

10          DR. WEININGER: That's correct.

11          DR. DIAMOND: You already have that?

12          DR. WEININGER: We have that authority.

13          DR. DIAMOND: Okay. Should I write down the  
14 issues regarding electrical devices or is that also implied?

15          DR. WEININGER: Let me include that general  
16 electrical safety is part of safety and safety and  
17 effectiveness. All Class II devices--in fact, all Class III  
18 devices, as well--have to be safe and effective in their  
19 intended use environments. That includes electrical safety.  
20 We use a variety of techniques currently to assess  
21 electrical safety, either UL or IEC-type requirements.

22                 These days, particularly with the CE market in  
23 place in Europe, manufacturers generally include that as  
24 part of their device requirements. So they design their

1 devices to achieve those requirements.

2 DR. DIAMOND: How about the controls for  
3 instructions for patients, clinicians and also for labeling?

4  
5 DR. WEININGER: Labeling is not my expertise.  
6 I'll look across the room.

7 MR. POLLARD: You can certainly make requirements  
8 in the labeling as a special control. And I would just add  
9 to Sandy's point. Although we do generally, in a general  
10 sense, have the authority to ask for those very specific  
11 aspects of electrical safety or transducer performance or  
12 system performance, I think those are applied in a  
13 discretionary basis and it certainly would probably add more  
14 import if the panel wanted to identify those up front, so  
15 you can be absolutely sure those are things that FDA would  
16 look into.

17 DR. YIN: If you check the box "performance  
18 standards," that would do it.

19 MR. POLLARD: I would just say performance  
20 standards, in this context, refers to federally promulgated  
21 regulations, which is a little--we usually don't rely on  
22 those. What we rely on are the use of voluntary standards  
23 in the context of special controls.

24 DR. EGLINTON: But we have a suggested list here

1 that perhaps everyone--from the petitioner. It's in your  
2 folder. It's this little package of about six or eight  
3 pages. It starts like this, handwritten.

4           If you turn to page 2, summary of the associated  
5 special controls, there's a long list. The first one is  
6 voluntary standards. The second one is special controls for  
7 user instructions. The third one is additional special  
8 controls related to design. The fourth is special controls  
9 regarding patient contact.

10           I'd like to suggest that we just adopt all of  
11 these under "other," which will save us about four days of  
12 discussing all of these.

13           DR. BLANCO: Would you like a motion?

14           DR. EGLINTON: That would be wonderful.

15           DR. NEUMANN: Before you do that, could I just  
16 comment? I think all of these are issues related to safety.  
17 I suppose all these numbers and letters mean standards  
18 around the world regarding safety, but I don't see anything  
19 here that deals with the issue that I was discussing before,  
20 namely that it does what it's supposed to do. And if we're  
21 going to specify this, I think we have to specify that, as  
22 well.

23           I would assume that these things are already  
24 included in whatever it was that Dr. Weininger was talking

1 about before, so by specifying it specifically, we're giving  
2 more emphasis to this and I think we need to give equal  
3 emphasis to the physiological performance, as well.

4 DR. EGLINTON: Maybe Dr. Weininger could respond  
5 to that. I thought his counseling was that your point about  
6 the clinical performance was implicit within the 510(k)  
7 mechanism and these are additional, outside of that. All of  
8 this huge laundry list of all of these specifications, these  
9 have to be specified outside of the generic 510(k) process?

10 DR. WEININGER: My feeling is no, you don't have  
11 to specify that laundry list because those are things that  
12 we generally do as part of our standard operating procedure.  
13 We address electrical safety. We address environmental  
14 safety. We address biocompatibility where it's needed. I  
15 mean, that's part of our discretion in using our expertise.

16 Where you believe that there is an important issue  
17 that needs to be addressed, like Dr. Neumann has suggested,  
18 please put it down because we're relying on your advice to  
19 tell us what you believe is important. So Dr. Neumann's  
20 made a good point and you should put it down and we will  
21 attempt to use your advice and translate that into  
22 regulatory requirements.

23 DR. HILL: So this laundry list is appropriate for  
24 whether it's a PMA or a 510(k)?

1 DR. WEININGER: Generally for safety aspects, and  
2 that's primarily what you're looking at there, if I remember  
3 the list, it's electrical safety, those are appropriate for  
4 Class II and Class III devices; that's correct.

5 DR. EGLINTON: The laundry list here, the first  
6 item is voluntary standards regarding EMC/EMI. That's IEC  
7 601-1-2, ANSI C-95.3-1991. I assume that's all electrical  
8 safety standards stuff.

9 DR. WEININGER: That's correct. The way the  
10 manufacturer would usually address this is in their design  
11 inputs, when they go to design their device, they would say  
12 what requirements do we have to meet? And these particular  
13 standards, general requirements for safety, spell out the  
14 levels of the insult in the environment, in the intended use  
15 environment. And the manufacturer designs his box and tests  
16 to the levels that are in these particular standards.

17 DR. EGLINTON: Right, but now the question is what  
18 you have been talking with us about; it does include item 2,  
19 special controls for user instructions, patient clinician  
20 and on-product labeling, or not?

21 DR. WEININGER: I have been specifically  
22 addressing item 1. Colin spoke about item 2.

23 DR. EGLINTON: So item 1 is implicit. It's  
24 implied in a 510(k) application basically.

1 DR. WEININGER: That's correct.

2 DR. EGLINTON: And clinical function of the device  
3 is implied in a 510(k) application. I mean, you're going to  
4 demand that. If it's an electrical device, it has to do  
5 what they purport that it does.

6 DR. WEININGER: I can say engineering function.

7 DR. EGLINTON: Right.

8 MR. SCHULTZ: Can I try to clarify something for  
9 one second? This is Dan Schultz.

10 I think what we're talking about is Sandy's  
11 talking about the general controls that we use, the design  
12 controls that apply to every single medical device.

13 What we're looking for from you, in terms of this  
14 specific device, and I think this was touched on earlier, is  
15 for instance, the manufacturer for the device in general  
16 would have to show that yes, it can monitor contractions and  
17 that the engineering is appropriate to do that.

18 If you, as a panel of gynecologists, say that in  
19 order for this kind of device to go to market that let's say  
20 90 percent of patients should be able to be successfully  
21 monitored, that would be a special control. In essence, it  
22 would relate to the engineering, it would relate to the  
23 ability of the device to do what it has to do but that would  
24 be a special control that compliance would not look for.

1 That would be some standard that you would set specifically  
2 related to this device, to make sure that the device was  
3 designed to be able to meet the clinical need as you, as  
4 clinicians, see it.

5 So I don't know if that clears it or muddies it  
6 but if there is some special standard in terms of how well  
7 this device performs clinically that you would like to see  
8 for all the devices that go to market, then that's what  
9 should go on that list.

10 DR. YIN: Let me add, though, since we're not  
11 talking about what Class II should mean, we are saying we  
12 are removing it from Class III to Class II. In order to do  
13 that, then you would require the performance standards.  
14 That's special control. Performance standards is in the  
15 special control.

16 So that's why you say, "Okay then, I feel very  
17 confident that this can be removed from III to II," if  
18 that's what you want--reclassify from III to II. Then you  
19 say for special control, we can have all those performance  
20 standards, voluntary or whatever, to meet that, in order to  
21 move it from III to II.

22 MR. ROSS: Lillian, I have a question directly  
23 related to that. Can I be recognized here?

24 DR. EGLINTON: Sure, go ahead.

1 MR. ROSS: Michael Ross.

2 I understand the potential merit in having the  
3 patient registry. However, I also greatly appreciate the  
4 potential merit in doing additional clinical studies, which  
5 would address the real underlying question, and that would  
6 be required by maintaining the Class III.

7 And what I'm asking to the FDA at this point is  
8 can you have these requirements, including the patient  
9 registry, while maintaining the device as a Class III?

10 DR. YIN: I think I'm going to have Kathy Ponelect  
11 answer that question. If this device stayed at Class III,  
12 can they have patient registry now, retroactively?

13 MS. PONELECT: Kathy Ponelect, director of the PMA  
14 program.

15 I believe, although we have not done it, that we  
16 can apply a patient registry to a Class III product already  
17 approved. We would have to do that by regulation and it  
18 would not be easy to do.

19 DR. YIN: It would not be easy but for the new  
20 Class III products, we should be able to?

21 MS. PONELECT: Normally when we apply restrictions  
22 we apply restrictions in the PMA through the approval order  
23 process.

24 MR. ROSS: I would then make the comment that I

1 think to move the device to a Class II, just to get a  
2 registry, is sort of self-defeating because what you really  
3 need is more studies and a greater demonstration of efficacy  
4 and you may be best off with the combination of remaining as  
5 a Class III device and a registry, if that's your desire.

6 DR. YIN: For Class II products we can ask for the  
7 clinical studies, also.

8 MS. PONELECT: There's another form under post-  
9 market surveillance. There are two forms. There's  
10 discretionary and required post-market surveillance. And  
11 the discretionary post-market surveillance would be what you  
12 would want to apply if you want that provision, if you check  
13 off that box, and that can be applied to both Class II and  
14 Class III products.

15 DR. EGLINTON: Have we filled in enough in  
16 question 7 to satisfy the FDA?

17 MS. DOMECUS: Have we formally answered yes to  
18 question 7 yet?

19 DR. EGLINTON: We have to decide if we've answered  
20 yes. So there is sufficient information to establish  
21 special controls to provide reasonable assurance of safety  
22 and effectiveness, so we have some special controls. Is  
23 there enough power there that people want to vote yes to  
24 classify as Class II?

1 DR. HILL: What about additional studies? Does  
2 the panel feel that we have enough studies to show  
3 effectiveness?

4 DR. BLANCO: You know the answer to that one.

5 DR. HILL: I know your answer.

6 DR. DIAMOND: In my mind there's no question but  
7 that there is still a tremendous amount that needs to be  
8 learned about this issue. The question that I guess I would  
9 pose is if I were a company coming along with a new device,  
10 a new home uterine activity monitoring device, and I see a  
11 model that three PMAs before me have gone through the  
12 system, have been approved, but four or five that haven't  
13 been approved, odds are, unless I had a good reason not to,  
14 I would probably utilize the model that's already tried and  
15 true, with maybe some minor modifications to spruce it up  
16 along the way, and try to use that.

17 So if that's what I were to do as a fourth company  
18 or a fifth company or a sixth company, I don't know that we  
19 would learn a great deal by insisting that future companies  
20 go through a PMA process. I don't think they're likely to  
21 say, "Well, let's go do multiple gestations" or "Let's go  
22 look at patients who don't have previous preterm labor."

23 Those are things we want to learn--no question  
24 about it--but I'm not sure that holding it in Class III for

1 the purpose of getting those studies is a realistic  
2 expectation. I think you're going to do exactly what's been  
3 done before three times, tried and true.

4 DR. BLANCO: Let me really agree with that because  
5 the last two times when manufacturers have changed the  
6 standard to sort of answer some of the issues that even this  
7 panel or former members of this panel thought needed to be  
8 answered, they've ended up with not showing a significance,  
9 which means they couldn't have a product, so they put all  
10 the money.

11 So anybody looking at the history of it and  
12 looking at what happened wouldn't want to go get the  
13 information that needs to be gotten. They'd want to do  
14 exactly how it was done before that they have the highest  
15 chance of being able to get a product on the market.

16 So I don't know that leaving it in three  
17 necessarily gets us any more information that's going to be  
18 valuable.

19 DR. DIAMOND: Post-market approval studies, those  
20 would be valuable. I don't know whether down-classifying it  
21 will result in greater availability and therefore other  
22 uses. I'm not sure. Clearly, to answer your question,  
23 there's as need for a tremendous amount of more information  
24 about many other different subgroups of patients.

1 DR. YIN: If you decide to reclassify, I would  
2 suggest you check performance standards.

3 DR. DIAMOND: Why is that?

4 DR. YIN: Because that's the assurance you're  
5 telling FDA if we have all those controls, we feel good, you  
6 feel good.

7 DR. WEININGER: Sandy Weininger with the FDA. Can  
8 I address some of the issues involved with a mandatory  
9 promulgated performance standard?

10 DR. YIN: No, we are not going to use that as a  
11 mandatory anymore because we're not heading in that  
12 direction. We're only heading towards voluntary. We may  
13 not require anything. It is not specific.

14 DR. WEININGER: Let me just briefly say, then,  
15 that mandatory FDA required performance standards take years  
16 to develop. In fact, we're still working on the first one.

17 So if you require that to be developed, and  
18 particularly if you require it to be in effect before the  
19 device is reclassified, that's not a practicality.

20 DR. EGLINTON: I'm confused and so is everybody  
21 mumbling around me, then.

22 Dr. Yin, what do you mean by checking that one?

23 DR. YIN: Checking performance standards in order  
24 not to confuse that it is a regulatory required standard,

1 and you should say conformance to FDA's policy now.

2 DR. DIAMOND: Should I write voluntary performance  
3 standards down here maybe?

4 DR. YIN: Right.

5 DR. HILL: I guess we need to go back and ask this  
6 question again. Clearly, there's a lot of controversy  
7 regarding the benefit of the monitor, pro and con studies.  
8 So I guess my question is, as a part of this changing from  
9 III to II, are we going to require any type of study to  
10 clarify the muddy waters or are we just going to continue to  
11 say it may be a benefit; it may not be a benefit?

12 DR. DIAMOND: Again I think that's an excellent  
13 question. I guess the question I'd ask in return is is it  
14 appropriate to be putting that onus on the manufacturers?

15 DR. HILL: We put it on the others.

16 DR. DIAMOND: We don't, I think, put on  
17 manufacturers having them design the ultimate studies that  
18 are going to decide between all the studies that have come  
19 before and the questions that have resulted in the  
20 literature. We ask them to answer a specific question, but  
21 not to resolve the questions that we have before us.

22 DR. EGLINTON: The problem, Wash, is that the  
23 commissioner of the FDA wrote a letter to industry and  
24 basically that's how we got where we are. That letter from

1 the FDA to industry, in essence, crafted the study design  
2 that we've been stuck with ever since, with the single  
3 outcome variable we've been stuck with ever since.

4 So, as Michael said, nobody's going to design a  
5 new study, so we're not going to get any more studies out of  
6 industry. We're not going to get a different study design  
7 out of industry because it's self-defeating.

8 So unless the commissioner of the FDA writes a new  
9 letter to industry and reshapes the study design, what you  
10 see is what you get. There aren't going to be any more  
11 study designs.

12 MS. DOMECUS: So I guess a question could be would  
13 we want manufacturers submitting 510(k)s to at least repeat  
14 the study designs that other manufacturers have had to  
15 implement to get PMA approval.

16 DR. EGLINTON: I think that's something along the  
17 lines that Dr. Neumann was talking about. I think we all  
18 want to know that somebody's--

19 DR. HILL: That the device works.

20 DR. EGLINTON: That it works, it does what it  
21 purports to do, so Johanna and her husband build one in the  
22 garage and they submit a 510(k), we want to know that it  
23 actually works.

24 DR. HILL: I guess my point is that I understand

1 that we came up with some criteria, some outcome variables  
2 that had to be shown by the company. I was a part of that.  
3 What I don't understand is, going back to Johanna, if she  
4 decides to come up with a device, how are we going to know  
5 that the device works, that it at least does what the  
6 commissioner asked other companies to do? How are we going  
7 to know that, other than Johanna saying it's like the other  
8 device? That's my question.

9 DR. PERLMUTTER: Don't I have to submit what the  
10 standards are to our FDA pals and say, "Here's how it works  
11 and it's exactly equivalent"?

12 MR. POLLARD: Colin Pollard at FDA. I would point  
13 to the second line under "other" for question number 7,  
14 where the panel had recommended that a control be instilled,  
15 if they were to put it in Class II, to ensure the device  
16 transducer would have the appropriate sensitivity and  
17 specificity.

18 This gets back to what Dr. Weininger was driving  
19 at earlier, showing, essentially validating that the device,  
20 the system, meets the clinical performance requirements.  
21 This would be--I could envision a study--the panel is  
22 welcome to put whatever recommendations on that, but a  
23 focussed clinical that essentially validated the performance  
24 of the device, showing that it detected contractions, wasn't

1 overly sensitive, wasn't insufficiently sensitive such that  
2 it would perform as required.

3           That's a different kind of study than, say,  
4 repeating the study that we've seen in three previous PMAs  
5 where we asked manufacturers to show that use of the  
6 monitor, compared to women who didn't have use of the  
7 monitor, led to an earlier detection of preterm labor, as  
8 evidenced by cervical dilation when they diagnosed preterm  
9 labor.

10           DR. EGLINTON: So tell us what to write down on  
11 the form so we can go to the next question.

12           MR. POLLARD: I'm comfortable with what you have  
13 on that form.

14           DR. EGLINTON: That's too many words to fit on the  
15 form. Can you distill that?

16           MR. POLLARD: I'd say a clinical validation study  
17 to show the device meets its clinical performance  
18 requirements.

19           DR. YIN: But that's what Dr. Neumann wanted.

20           DR. EGLINTON: That's what we want. We're trying  
21 to figure out how to get those words on there.

22           MR. POLLARD: How about a clinical confirmatory  
23 study?

24           DR. EGLINTON: Clinical validation study; how's

1 that? Yes, sir?

2 MR. COWART: I had a quick question for you. Tim  
3 Cowart from Matria. It sounds like you're frustrated, too,  
4 Dr. Eglinton.

5 Getting to the issue, a Class II device with  
6 special controls placed on it is still not going to address  
7 your question. Class III, on the other hand, may address  
8 your question if you ask for some other things, and I don't  
9 know what those things are specifically at this point.

10 The question, I guess, getting to the meat of the  
11 matter, is if you change the classification status, you're  
12 still not going to get the studies that you want to see, and  
13 that's frustrating, not only for yourselves but for  
14 ourselves, as well.

15 So I guess the question becomes does it make sense  
16 to do it?

17 DR. NEUMANN: It seems to me that the issue of  
18 getting the kinds of studies that we all need is a  
19 scientific issue at this point rather than a manufacturing  
20 issue. And it seems to me that if everyone agrees,  
21 manufacturers and clinicians and medical centers, that there  
22 are mechanisms that those studies could, in fact, be done  
23 and could be done in a cooperative way that will really help  
24 all of us, and perhaps what the panel ought to do is

1 recommend that whatever is necessary to bring that about be  
2 encouraged to occur and leave it to the various parties to  
3 try and come up with a way to do that.

4 DR. EGLINTON: Dr. Yin?

5 DR. YIN: Sounds like a good suggestion. You can  
6 even specify if FDA would go and ask NIH to conduct such a  
7 study, because we cannot. We don't do research in FDA but  
8 you could request that we go over and ask for that.

9 DR. NEUMANN: It seems to me that NIH was looking  
10 at the possibility of doing that kind of a study several  
11 years ago through the Perinatal Network.

12 DR. YIN: You can make that recommendation.

13 DR. EGLINTON: Is there a call for the question on  
14 question 7 here, yes/no, a vote? Anybody care to move that  
15 we vote?

16 DR. CHATMAN: Sure. I move that we vote on number  
17 7.

18 DR. EGLINTON: Second?

19 DR. DIAMOND: Second.

20 DR. EGLINTON: Dr. Diamond, okay.

21 Those who would like to vote yes, signifying  
22 reclassifying this into Class II on question 7 here, please  
23 raise your hands.

24 Any opposed or abstaining?

1 DR. BLANCO: Just to clarify, Mr. Chairman, that's  
2 with the special conditions that we've identified?

3 DR. EGLINTON: With all the special controls,  
4 right. That's why we wanted to put the special controls in  
5 first.

6 Michael, I guess we have to--

7 DR. DIAMOND: Should we go on to 8?

8 DR. EGLINTON: If it's a federal form, I assume we  
9 have to fill in all the boxes.

10 DR. DIAMOND: "If a regulatory performance  
11 standard is needed to provide reasonable assurance of the  
12 safety and effectiveness of a Class II or III device,  
13 identify the priority for establishing such a standard."

14 We just put in a performance standard but I'm not  
15 sure that we put it in--what they're talking about. This is  
16 not applicable; is that correct?

17 DR. YIN: Not applicable.

18 DR. BLANCO: This is the mandatory performance  
19 standard we were talking about.

20 DR. DIAMOND: Okay, number 9. "For a device  
21 recommended for reclassification into Class II, should the  
22 recommended regulatory performance standard be in place  
23 before the reclassification takes effect?" That also, then,  
24 is not applicable.

1 DR. YIN: Right.

2 DR. DIAMOND: Number 10, Class III, it's not  
3 applicable. We just recommended the other.

4 "Can there otherwise be reasonable assurance of  
5 its safety and effectiveness without restrictions on its  
6 sale, distribution or use because of any potentiality for  
7 harmful effect or the collateral measures necessary for the  
8 device's use?"

9 DR. BLANCO: This is a difficulty worded question  
10 but I think what they're saying is is there a restriction  
11 and is it a restriction that needs to be initiated on a  
12 physician's restriction, if I read it right. So it actually  
13 should be no, there's not a reasonable assurance of safety  
14 and effectiveness without some restrictions. Then you go to  
15 11-B. Am I reading that right?

16 DR. YIN: Yes.

17 DR. DIAMOND: So "no" is the answer. And then 11-  
18 B, "Identify the needed restrictions." The one that was  
19 just mentioned was the top one, "Only upon the written or  
20 oral authorization of a practitioner licensed by law to  
21 administer or use the device."

22 Are there others to add?

23 DR. EGLINTON: Dr. Blanco wants to fill in under  
24 "Other," "Never."

1 DR. BLANCO: I didn't say that.

2 DR. EGLINTON: Do we have anything more on the  
3 supplemental data sheet we have to fill in?

4 DR. DIAMOND: Number 8: "Summary of information,  
5 including clinical experience or judgment, upon which  
6 classification recommendation is based."

7 DR. BLANCO: Refer to today's transcript.

8 DR. EGLINTON: Seventy-nine published articles in  
9 the literature.

10 MS. DOMECUS: You can refer to the manufacturer's  
11 petition, as well. It's all summarized.

12 DR. DIAMOND: And then number 9, "Identification  
13 of any needed restrictions on the use of the device." I  
14 think that was the same as 11-B in the other one.

15 DR. BLANCO: It's a government form, asks the same  
16 question twice.

17 DR. EGLINTON: 10 is N/A.

18 DR. DIAMOND: Yes, not applicable. And then 11,  
19 "Existing standards applicable to the device, device  
20 subassembly B or device materials."

21 DR. EGLINTON: Is that just the special controls,  
22 existing standards, which is the summary of the associated  
23 special controls? Is there something more to that?

24 DR. YIN: No, that's it.

1 DR. DIAMOND: So that's "see number 7."

2 DR. EGLINTON: So that's just "see the special  
3 controls." It's the summary of special controls, all the  
4 special controls listed under question 7.

5 So I would like to have someone move to accept the  
6 forms as they stand, to serve as our recommendation  
7 regarding the classification, the reclassification.

8 DR. CHATMAN: So moved.

9 DR. EGLINTON: Second?

10 DR. BLANCO: Second.

11 DR. EGLINTON: Okay. Those in favor of accepting  
12 the forms as they stand?

13 DR. DIAMOND: Point of information? As they stand  
14 means as we've filled it out or as the petitioner--

15 DR. EGLINTON: As we filled it out.

16 Those who would like to have the forms as we  
17 filled them out serve as our recommendation regarding the  
18 reclassification petition, raise your hands, please.

19 Those who are opposed or abstaining. That's it.

20 Do we have any other business someone needs to  
21 bring up? Oh, we have to ask them why they--oh, Colin.

22 Dr. Diamond?

23 DR. DIAMOND: Did we want to take advantage of Dr.  
24 Yin's suggestion that we make the recommendation to FDA that

1 they talk with NIH about sponsoring a study looking at this?

2 DR. EGLINTON: That sounds like a great idea.

3 DR. HILL: I think it would be a good idea.

4 That's the one area that I feel very unsure, unhappy about,  
5 is that we don't have the information that we need. We are  
6 nowhere closer, maybe a little bit, than we were seven years  
7 ago. We still have some of the same issues out there, same  
8 questions. So I'd like to strongly make that  
9 recommendation.

10 DR. EGLINTON: I think that's probably unanimous.

11 Those who are in favor of the panel recommending that the  
12 FDA discuss that with the NIH, raise your hands, please.

13 Is anyone opposed to that? Thank you.

14 DR. NEUMANN: I think one corollary to that is  
15 that there be some mechanism whereby industry can help cover  
16 the burden of such a study, that it shouldn't just be on  
17 NIH's expenses.

18 DR. YIN: Maybe they can provide the devices.

19 DR. EGLINTON: Is there any other business? Colin  
20 said we have to ask why everybody voted the way they did.

21 Dr. Blanco?

22 DR. BLANCO: I voted the way that I did because I  
23 believe that with the amount of information that we have  
24 now, I don't think there would be any further studies that

1 would help clarify the many questions that there are still  
2 about the use of this instrument and that there are  
3 significant concerns about its initiating a cascade of  
4 events that can result in problems.

5 I think that changing it and requiring the special  
6 requirements that we did will be much more likely to provide  
7 us information that may be useful to delineate whether it  
8 really has a place or not and what its side effects are of  
9 the cascade that it begins. That's why I voted the way I  
10 did.

11 DR. CHATMAN: Donald Chatman. I voted the way I  
12 did primarily because of the special controls.

13 DR. DIAMOND: I voted the way I did because I did  
14 not think that we're here today to discuss what is the value  
15 of home uterine activity monitoring, which is a much larger  
16 question, but rather in a situation where it is an approved  
17 device, as we sat here today. The question is does it meet  
18 the criteria that would allow it to be put into a less  
19 restrictive classification of Class II, and I thought that  
20 it did.

21 DR. PERLMUTTER: I voted the way I did basically  
22 for the reasons that Dr. Diamond did. I did not feel that  
23 we were here today to discuss efficacy but rather, whether  
24 the device itself could be down-classified and I agree with

1 that, with the special controls.

2 DR. NEUMANN: I still feel there are major  
3 concerns that we need to address regarding this device but I  
4 think that the FDA and this panel have certainly exercised  
5 it to the extent humanly possible and I think it's time to  
6 move on. So I voted for Class II to help that process  
7 along.

8 DR. HILL: Well, I reluctantly voted yes and I  
9 hear some laughter around the room but I guess I voted yes  
10 because of the special controls, for sure. I believe that  
11 they're needed.

12 I would like to see a study done, hopefully by NIH  
13 and the industry--that might be wishful thinking--that will  
14 help us clarify some of the issues. There are a lot of them  
15 out there. I do think the special controls will help in the  
16 more proper use of the device, so that's why I voted yes.

17 DR. EGLINTON: Ms. Domecus, nonvoting, but do you  
18 care to comment?

19 MS. DOMECUS: No.

20 DR. EGLINTON: Ms. Young?

21 MS. YOUNG: Yes, I don't think that the  
22 reclassification is going to be the answer. I think that  
23 certainly the special controls are good, but given the  
24 limitations or the restrictions placed on the decision that

1 had to be made today, perhaps there wasn't any alternative  
2 but I think that maybe a braver alternative would have been  
3 to have left it at Class III and not changed it to Class II.

4 DR. EGLINTON: Any other comment?

5 Motion for adjournment?

6 DR. CHATMAN: So moved.

7 DR. EGLINTON: Second?

8 DR. BLANCO: Second.

9 DR. EGLINTON: We're adjourned.

10 [Whereupon, at 1:28 p.m., the meeting was  
11 adjourned.]