

Integrating Packaging, Storage, and Disposal Options into the Medication Use System

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Any labeling statement examples in this presentation reflect preliminary considerations and are included to generate scientific discussion. They do not represent FDA recommended labeling statements.



Objectives

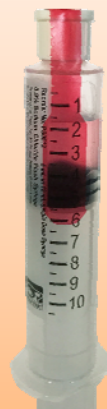
- Walk through the medication-use system, identifying key stakeholders and technologies
- Identify how packaging, storage, and disposal options may integrate into the medication-use system

Example products to be used throughout the presentation:

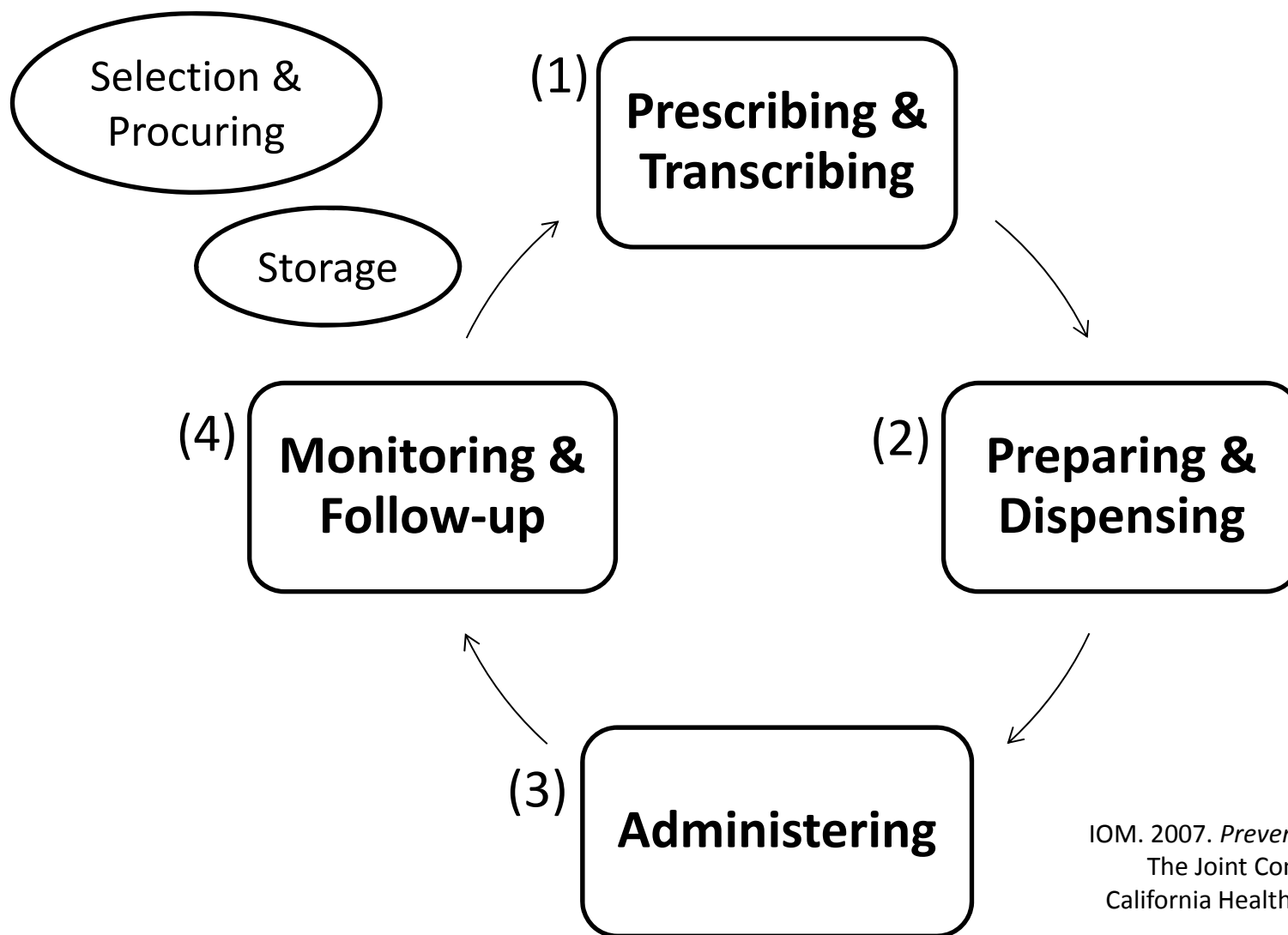
OUTPATIENT ORDER:
Oxycodone tablets in a calendar blister pack



INPATIENT ORDER:
Tamper-resistant hydromorphone syringes



Medication-use system



IOM. 2007. *Preventing Medication Errors*.
The Joint Commission. 2012. CAMH.
California HealthCare Foundation. 2001.



Example Stakeholders

- Patients/consumers
- Providers/prescribers
- Pharmacist
- Payers
- Regulators
- Manufacturers
- Distributors
- Policy makers
- Accrediting bodies
- Patient safety organizations
- Quality improvement organizations

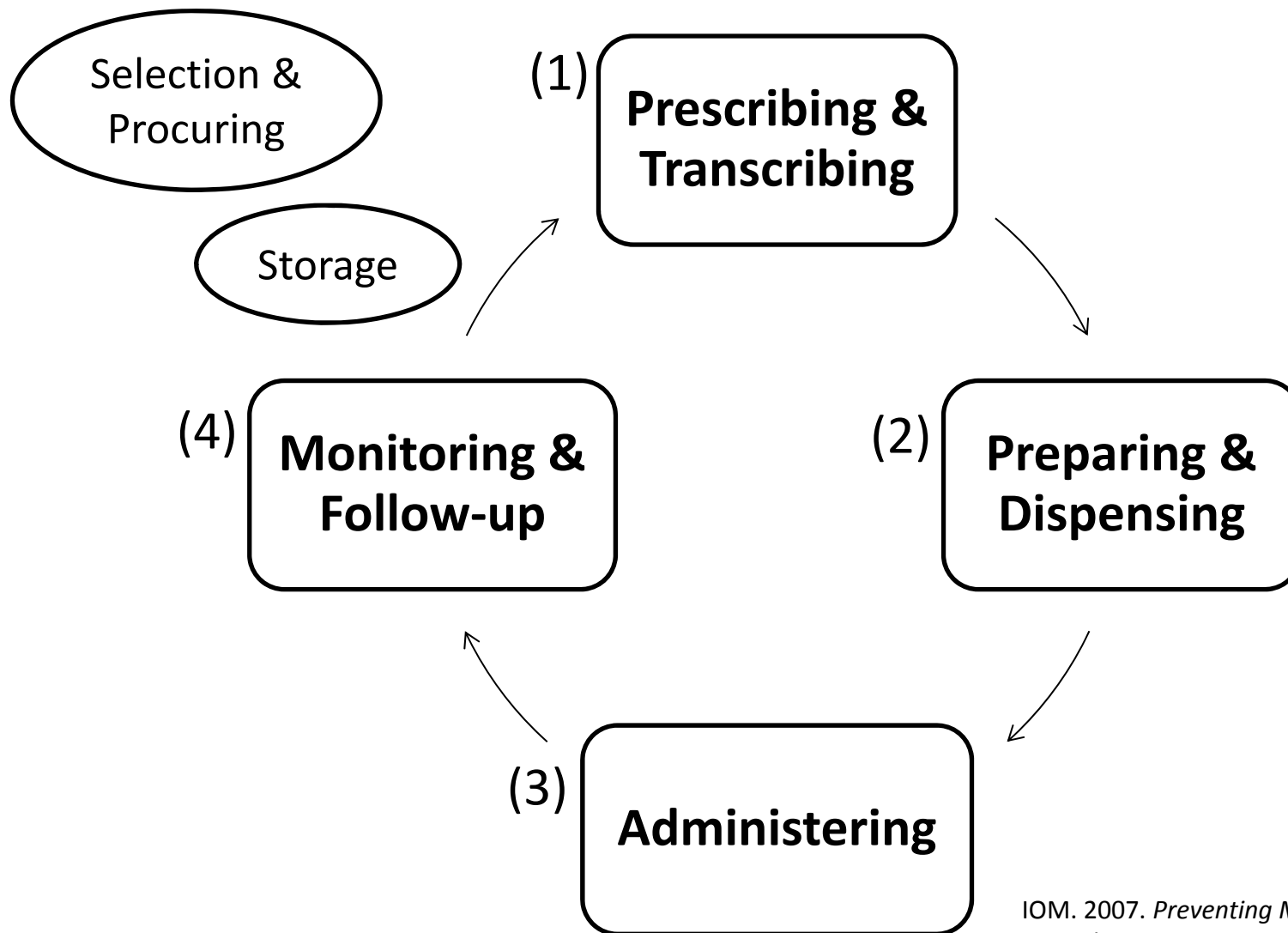


How might health care providers learn about new options?

- Education platforms:
 - Continuing education (CE) provider systems
 - Learning Management Systems (LMS)
 - Clinical Decision Support Systems (CDSS)
 - Drug sponsor Risk Mitigation and Evaluation Strategies (REMS) portal

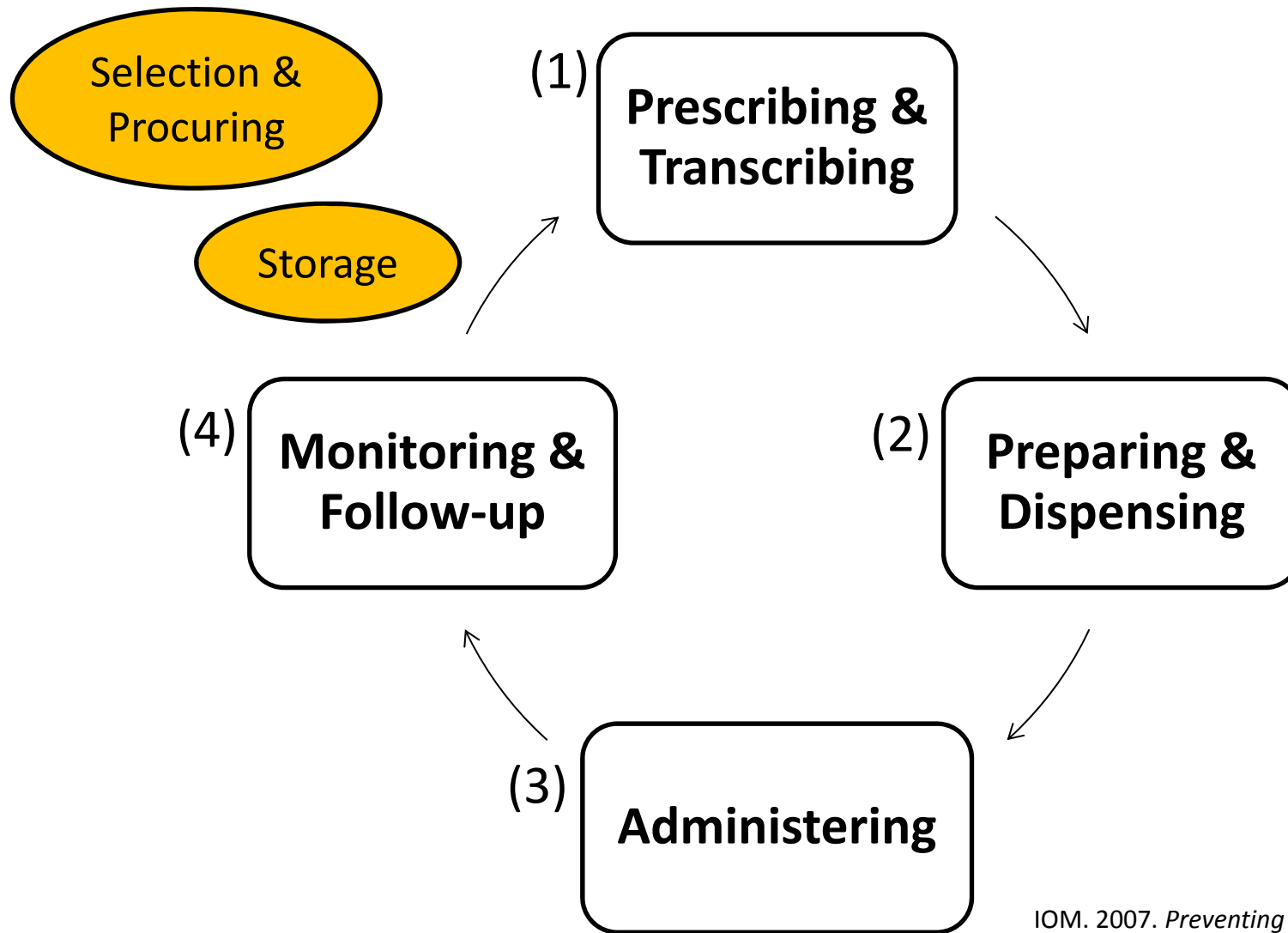
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Selection & Procuring

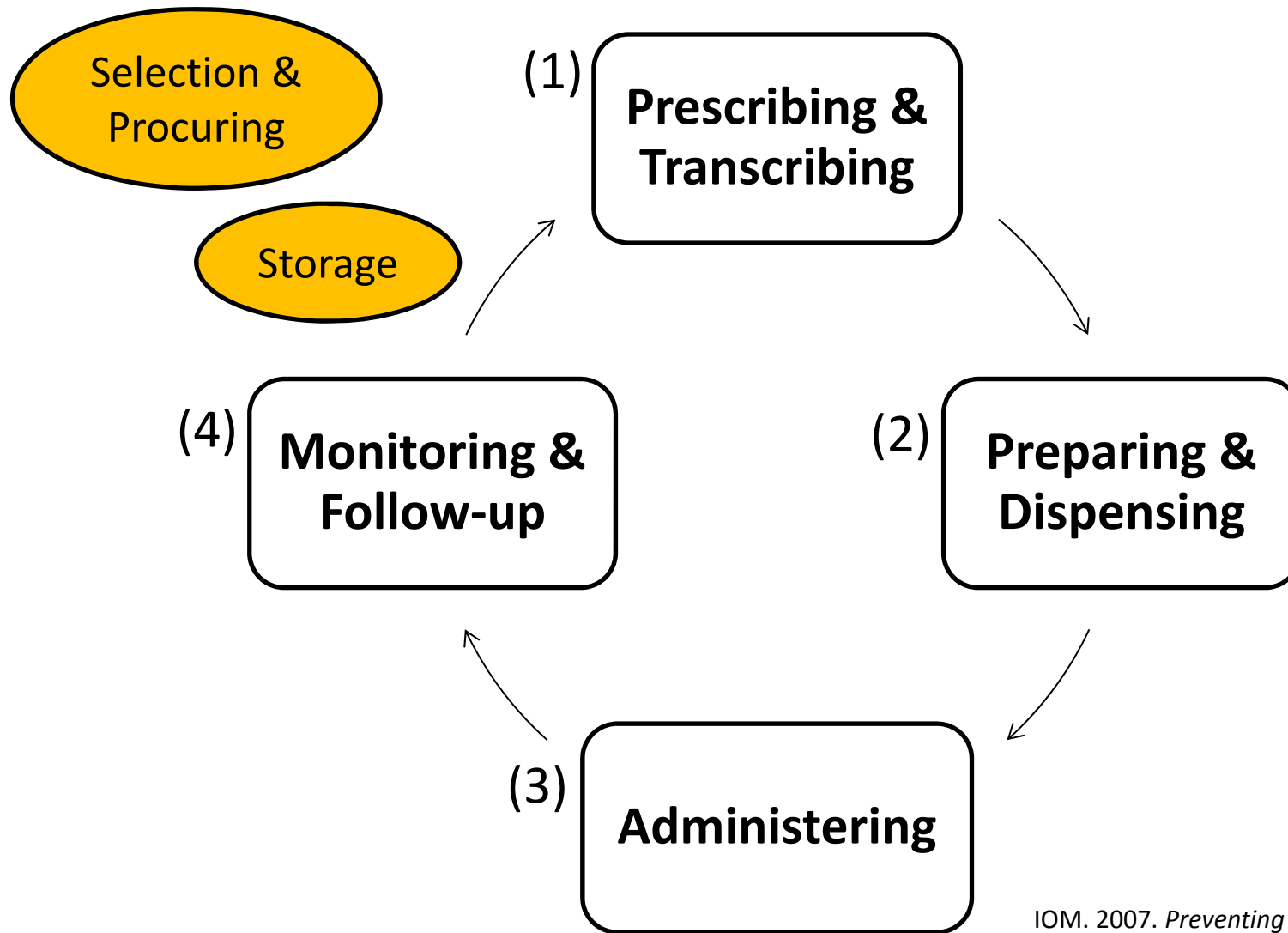
- Formulary: preferred drug list
- Example Stakeholders
 - Private practice clinicians
 - Pharmacy & Therapeutics (P&T) Committees
 - Interdisciplinary team of clinicians and administrators
 - Wholesalers/distributors/manufacturers
 - Pharmacy Benefits Managers (PBMs)
 - Third Party Payers
 - Veterans Health Administration
 - Private-sector health maintenance organizations (HMOs)
 - Private-sector payers
 - Centers for Medicare and Medicaid (CMS)



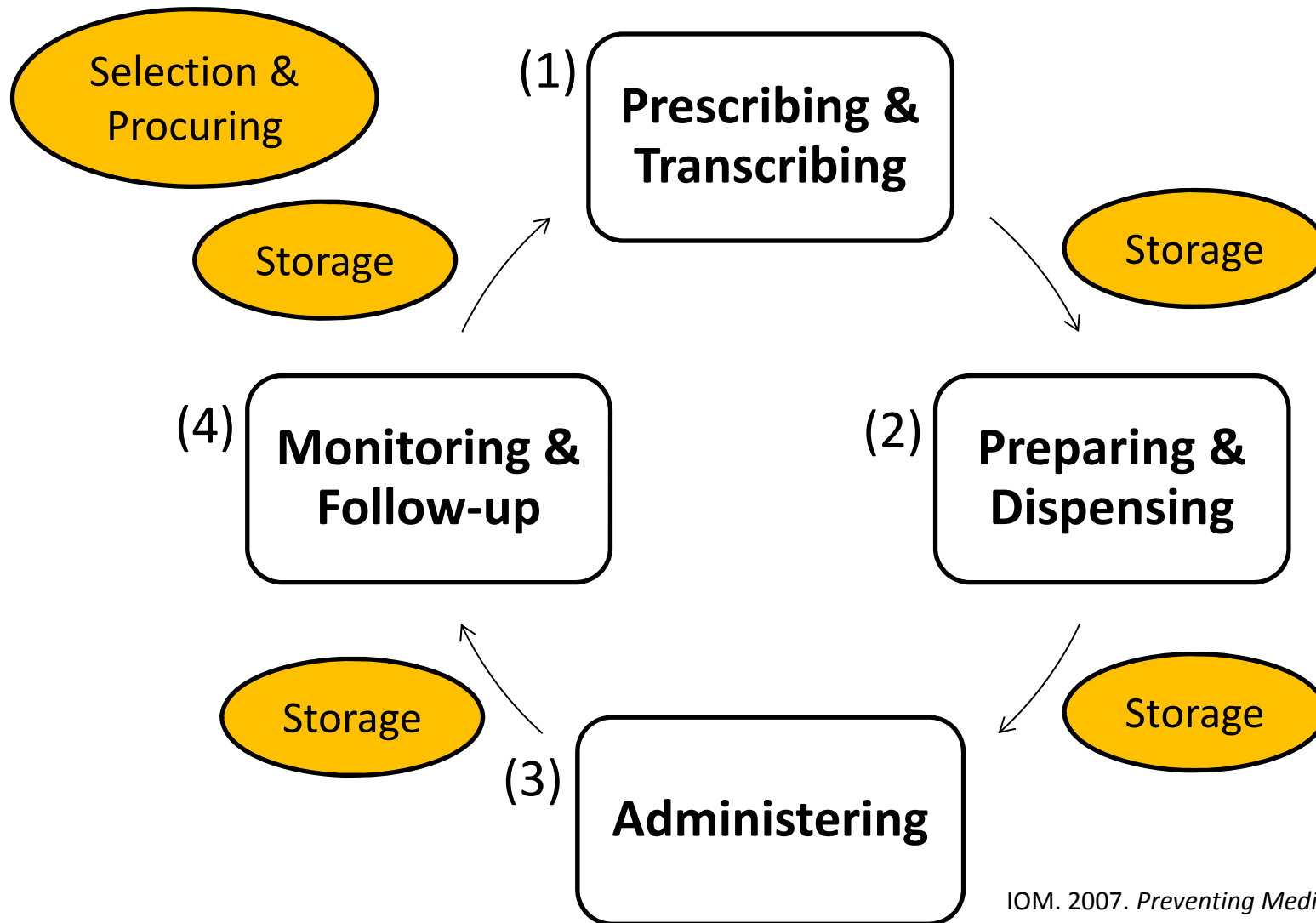
Storage

- Requirements
 1. Security of the medication
 2. Protect against accidental exposure
 3. Maintain integrity of product (quality considerations)
- Example Stakeholders
 - Wholesalers/distributors/manufacturers
 - Policy makers
 - Clinics and pharmacies (inpatient, outpatient, specialty, mail order, etc)

Medication-use system

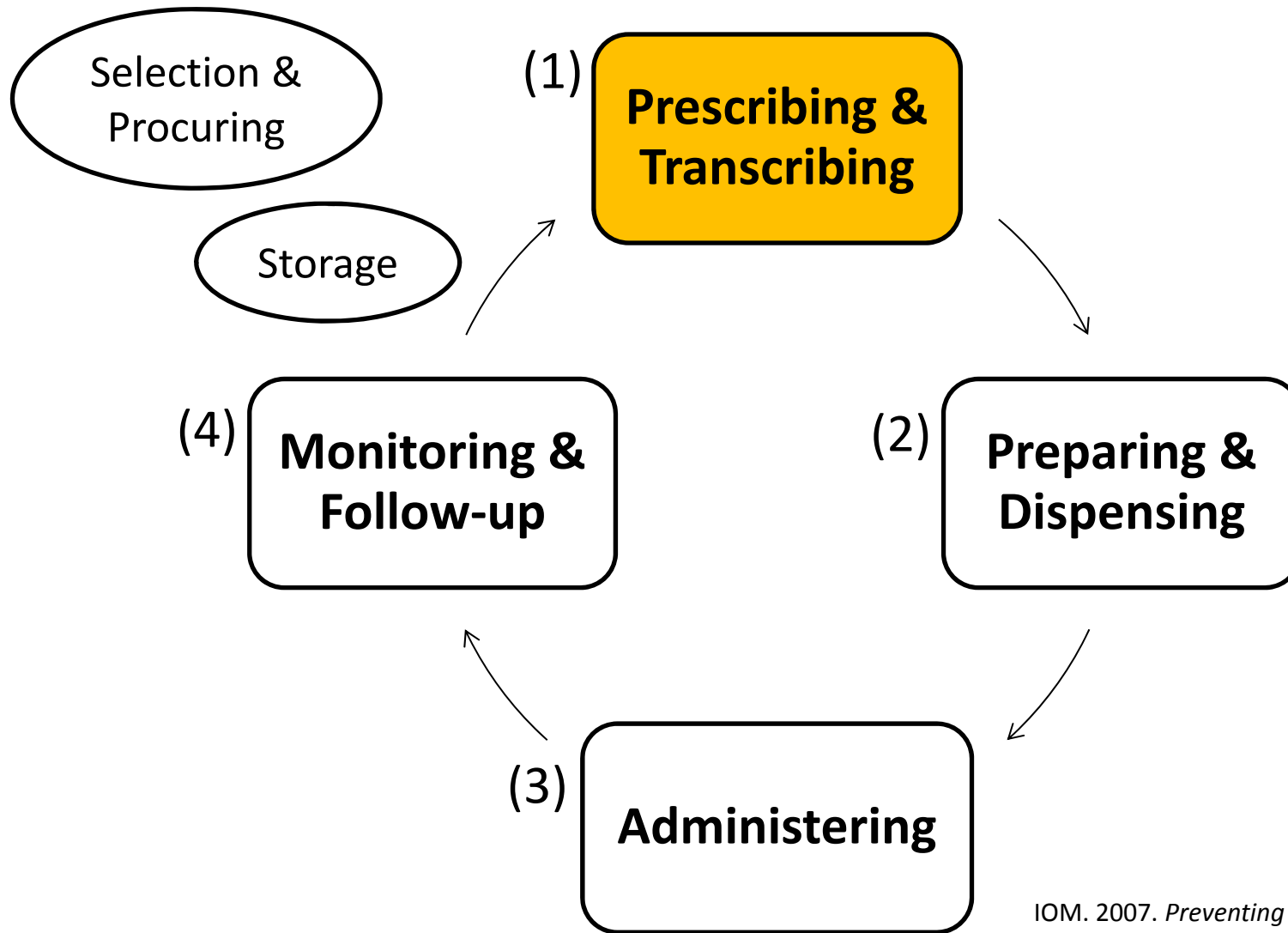


Medication-use system



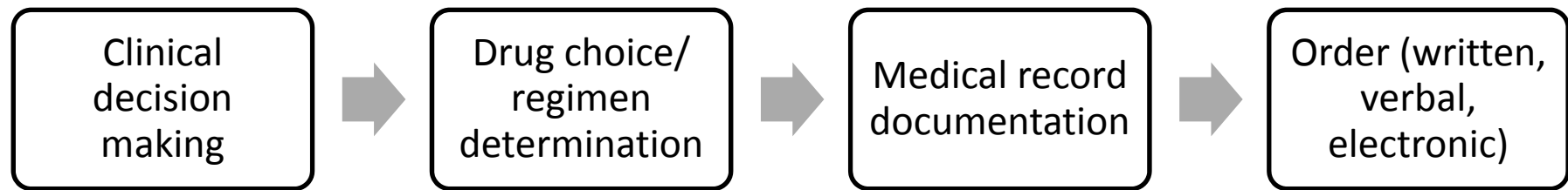
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(1) Prescribing



EXAMPLE USER(S):

Prescriber

EXAMPLE TECHNOLOGIES/SYSTEMS:

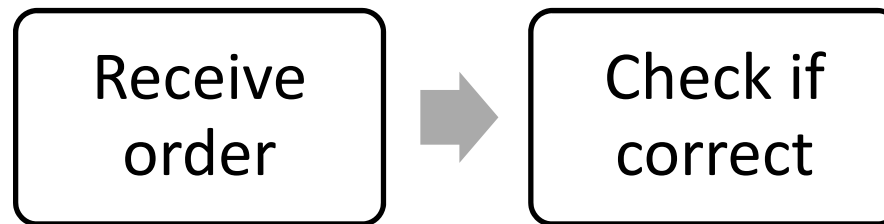
- Electronic Medical Record (EMR)
- Computerized Physician Order Entry (CPOE)

OUTPATIENT ORDER:
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Transcribing



EXAMPLE USER(S):

Pharmacist

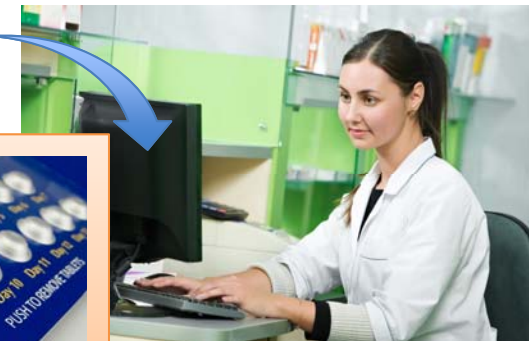
Nurse

Unit Clerk

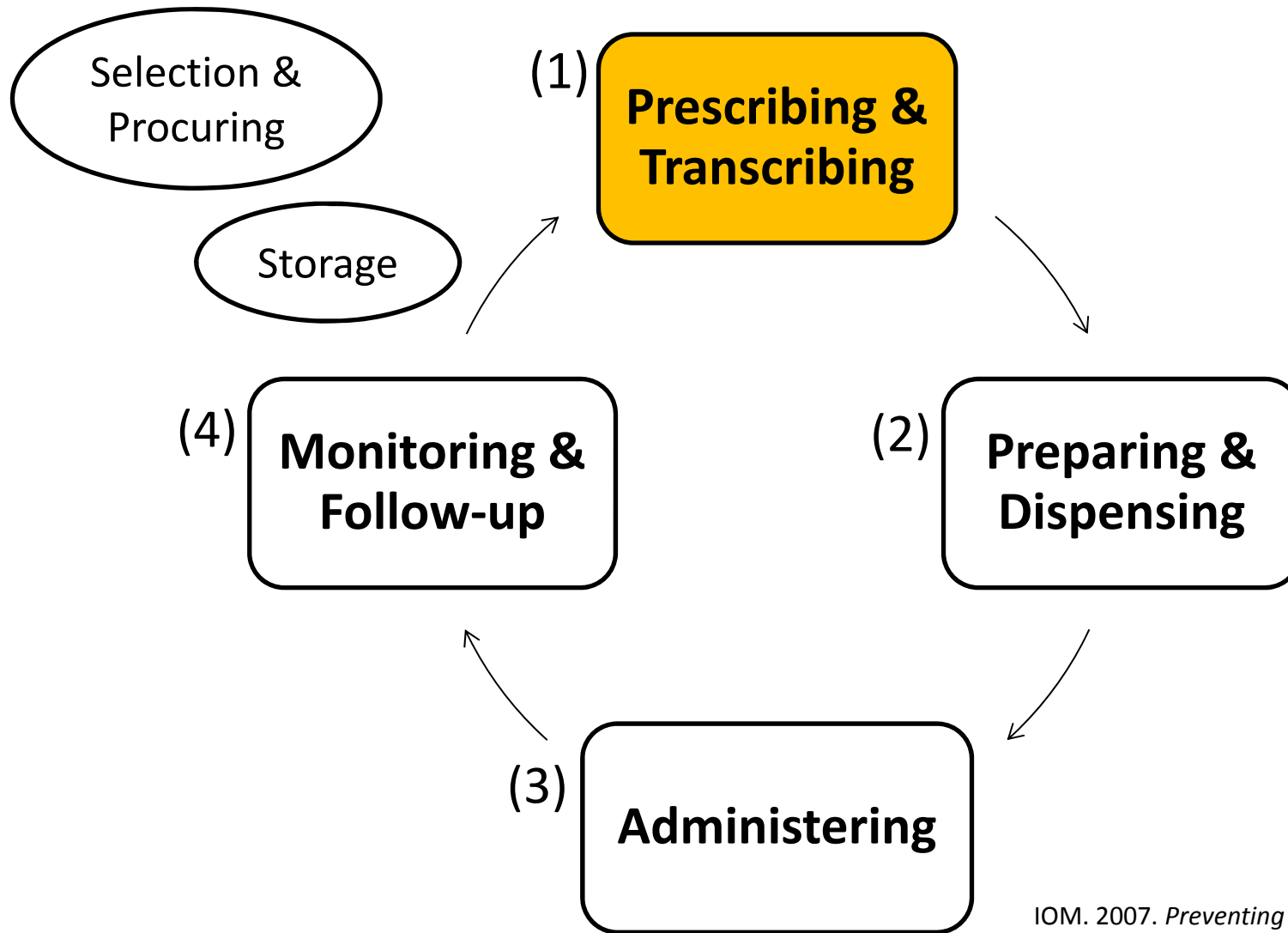
EXAMPLE TECHNOLOGIES/SYSTEMS:

- Order Management Systems
- Pharmacy Information Systems

OUTPATIENT ORDER:
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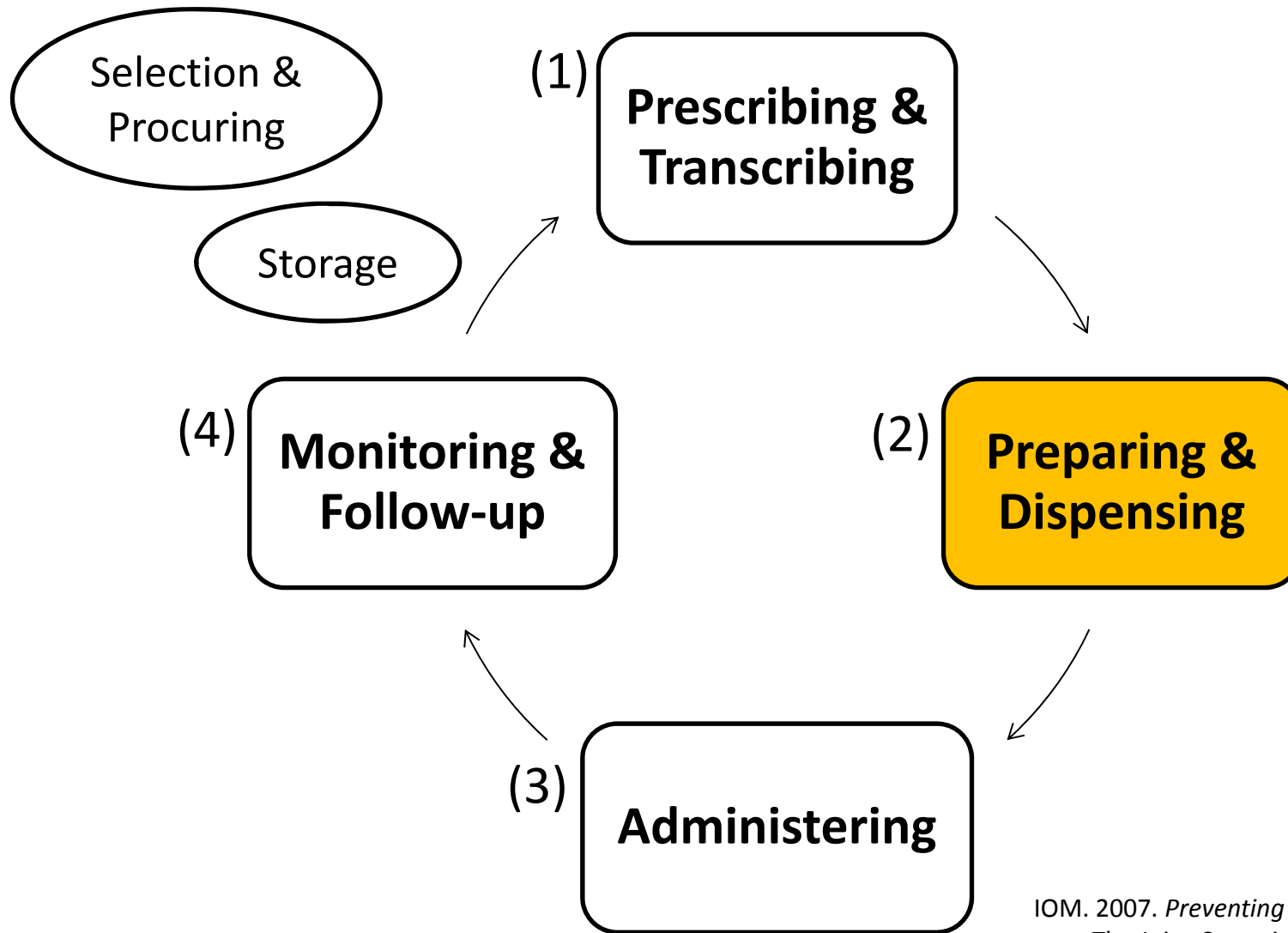


Medication-use system



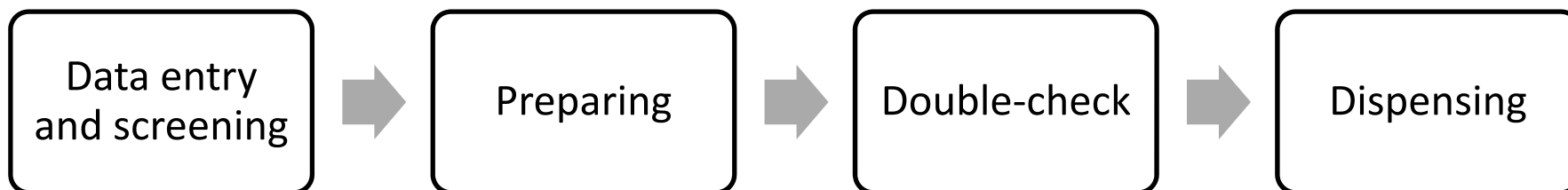
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(2) Preparing & Dispensing



EXAMPLE USER(S):

Pharmacist


Pharmacy Technician

Buyer

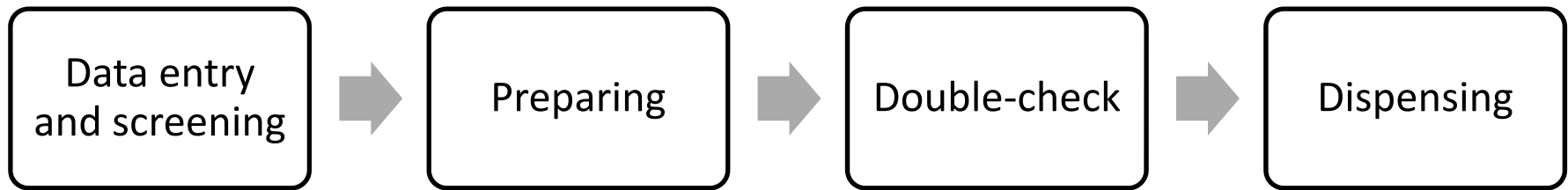
EXAMPLE TECHNOLOGIES/SYSTEMS:

- Drug purchasing and supply chain management systems
- Automated Dispensing Cabinets (ADCs)

INPATIENT ORDER:
Tamper-resistant hydromorphone syringes




(2) Preparing & Dispensing



EXAMPLE USER(S):

Pharmacist

Pharmacy Technician

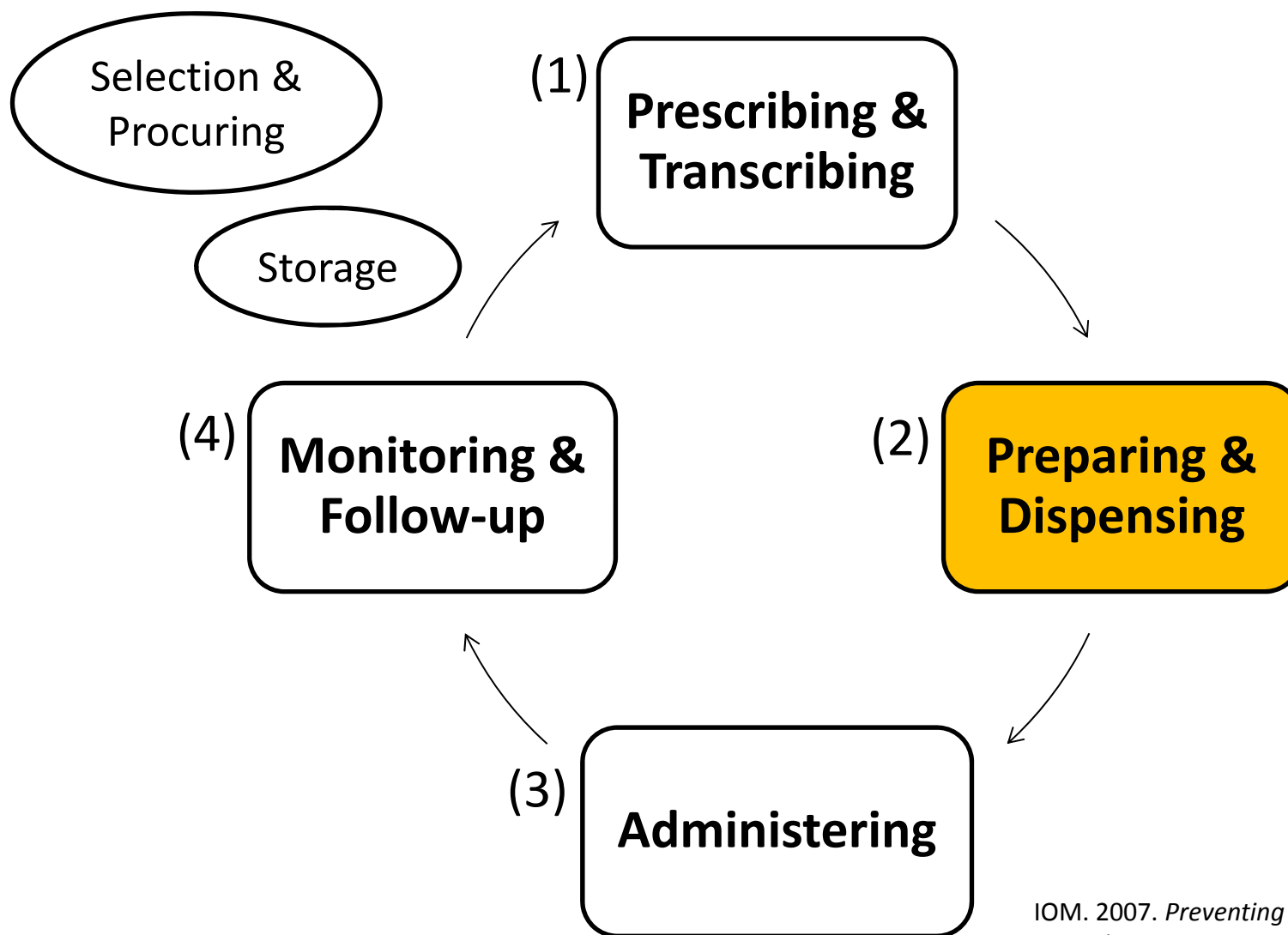
Buyer

EXAMPLE TECHNOLOGIES/SYSTEMS:

- Payer Prior Authorization (PA)
- Payer Medication Therapy Management (MTM)
- State Prescription Drug Monitoring Program (PMP/PDMP) databases

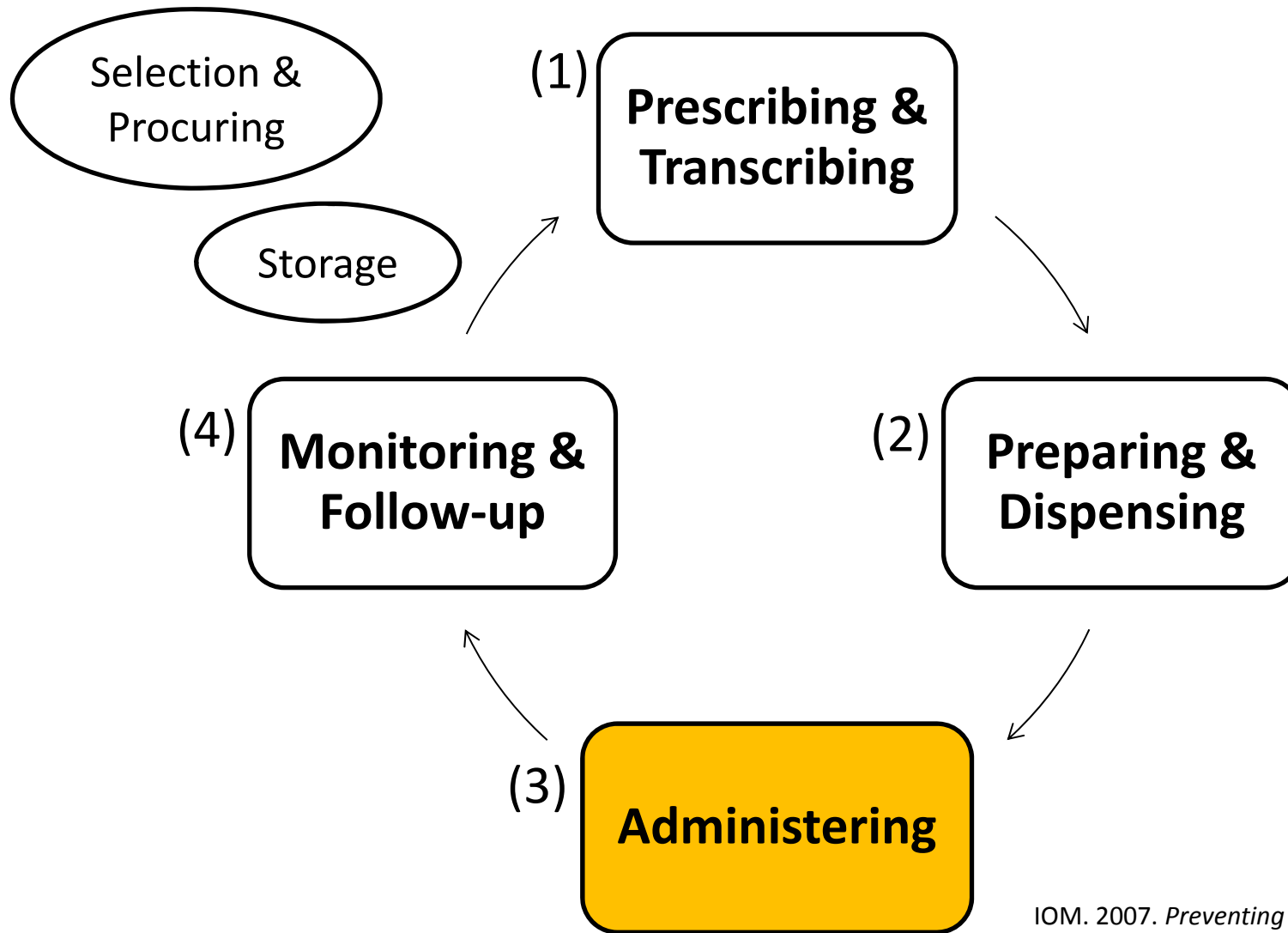


Medication-use system



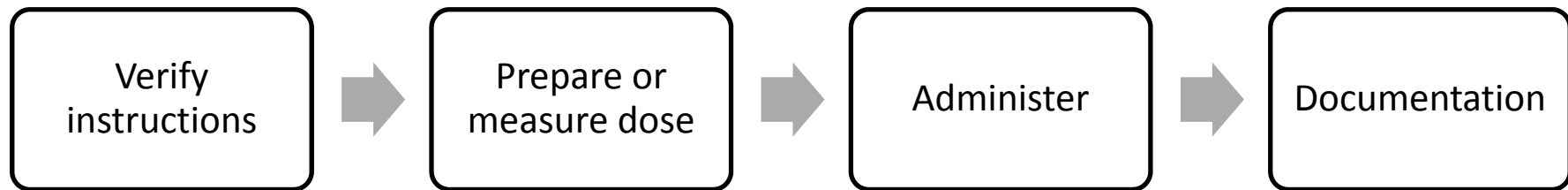
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Medication-use system



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(3) Administering



EXAMPLE USER(S):

**Nurse/
Caregiver**

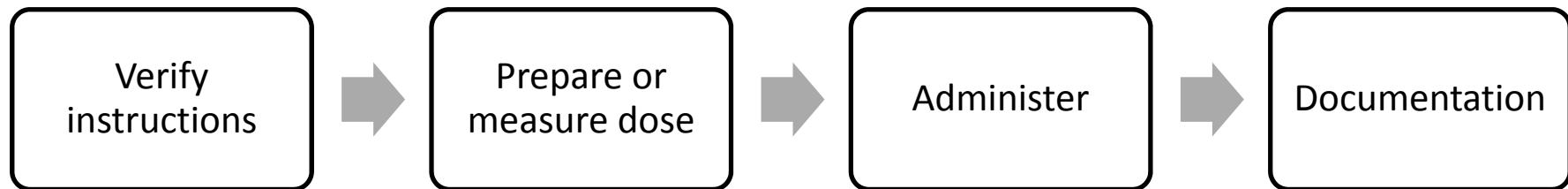
Patient

EXAMPLE TECHNOLOGIES/SYSTEMS:

- Medication Administration Record (MAR)
- Infusion Devices
- Bar Coded Medication Administration (BCMA)



(3) Administering



EXAMPLE USER(S):

**Nurse/
Caregiver**

Patient

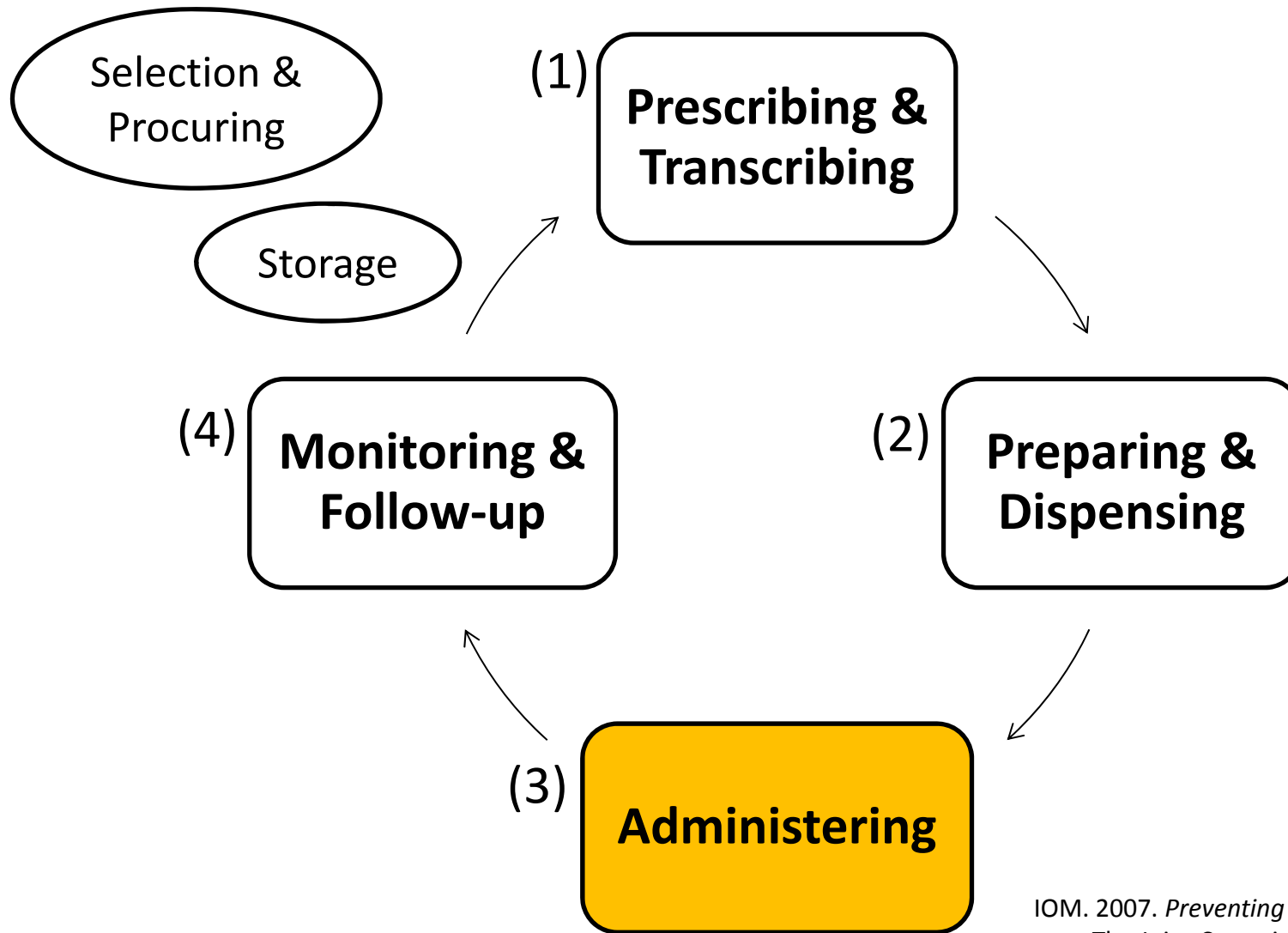
EXAMPLE TECHNOLOGIES/SYSTEMS:

- Mobile medical applications
- Desktop software

OUTPATIENT ORDER:
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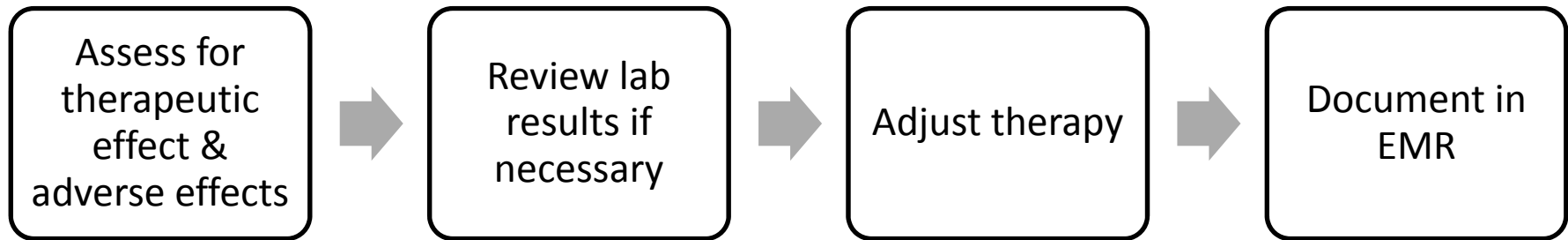
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(4) Monitoring & Follow-Up



EXAMPLE USER(S):

Providers

Patient

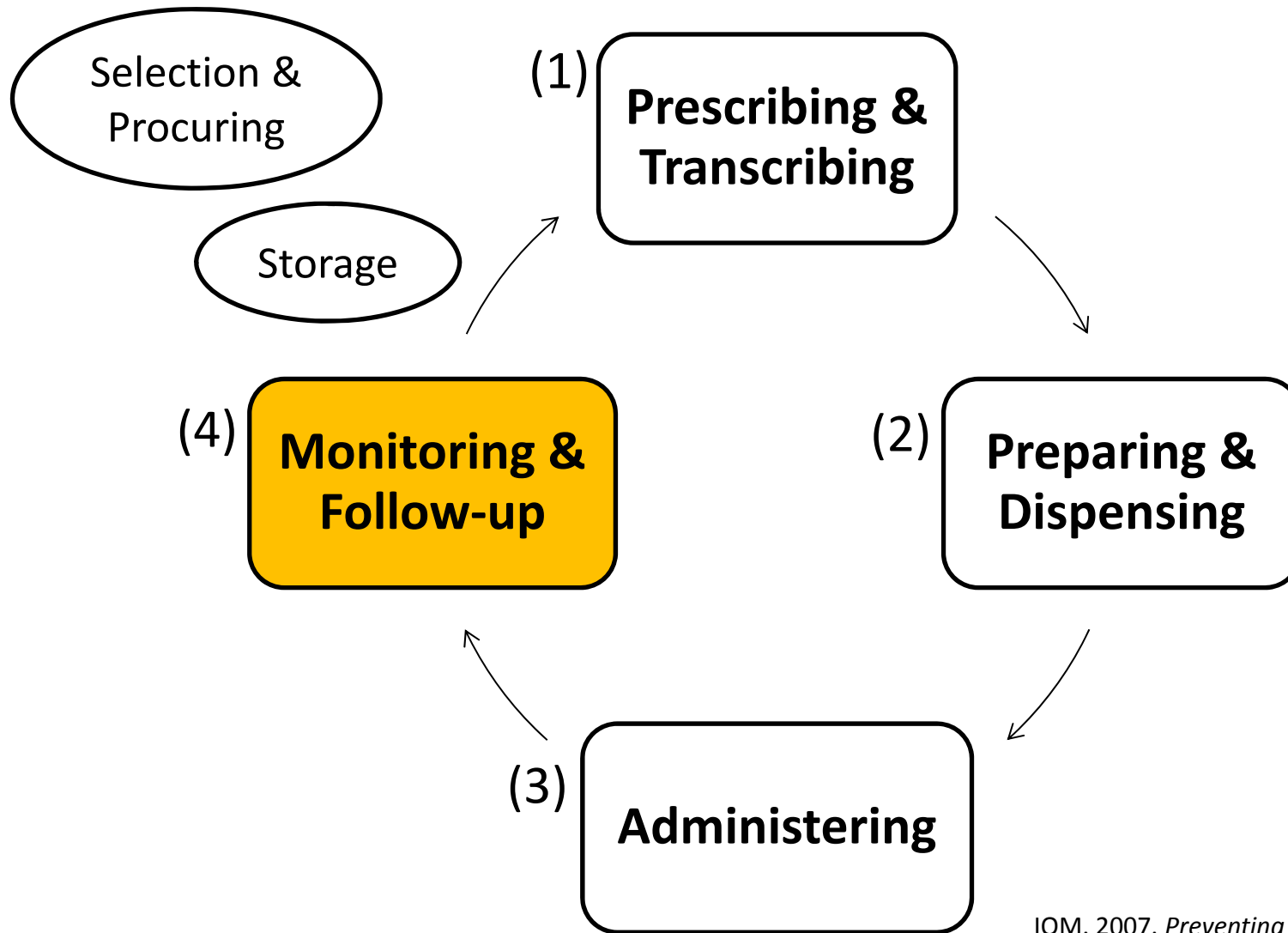
EXAMPLE TECHNOLOGIES/SYSTEMS:

- Medication Administration Record (MAR)
- Patient Portals
 - Risk Mitigation Evaluation Strategies (REMS)
 - Health-Systems Patient Portal
- Telemedicine

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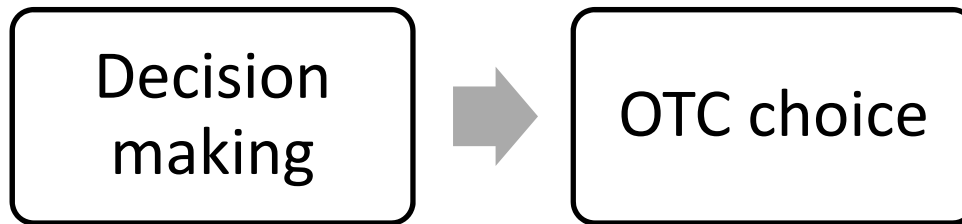


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Self-care (OTC)



EXAMPLE USER(S):

Patient

Caregivers

EXAMPLE TECHNOLOGY:

- Mobile medical applications





Summary

- The medication-use system is a complex process involving many stakeholders and technologies
- Inpatient vs. outpatient pharmacies can feature differing processes and technologies

