

Guiding Pharmacy Students To Adopt A Patient-Centered Practice:

Presented by:

Vivian Lee

BScPhm candidate
UW School of Pharmacy

Faculty supervisor:

Certina Ho

Adjunct Clinical Professor
UW School of Pharmacy



**Exploring The Problem Of
Medication Non-Adherence**

Outline

- **Background**
 - Pharmacy education
 - Adherence to bisphosphonate therapy
 - Research question
- **Method and Deliverables**
 - Using the PASSAction framework
- **Implications**
- **Discussion for the audience**



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Pharmacy Education



Pharmacy Education in Canada

- **Science and therapeutics of drugs**
 - Pathophysiology (*what is this disease? how does it present?*)
 - Therapeutics (*how do you treat it? i.e., which drugs?*)
 - Pharmacology (*how does the drug work at a molecular level?*)
 - Pharmacokinetics (*how does the drug work at a kinetics level?*)
 - Medicinal chemistry (*what is the chemical structure of the drug?*)



Pharmacy Education at UW

- **Application of knowledge in patient care**
 - Indication
 - Effectiveness
 - Safety
 - **Adherence**



What is Adherence?

- The extent to which a person's behaviour, such as taking medications, following a diet and/or executing lifestyle changes, corresponds to agreed-upon recommendations from a health care provider



How UW pharmacy students assess adherence in paper cases

- Does the patient prefer not to take the drug?
- Does the patient understand the directions for use?
- Does the patient forget to take the drug?
- Is the drug too expensive for the patient?
- Can the patient swallow/administer the drug?
- Is the drug available?

How UW pharmacy students assess adherence in paper cases

- Does the patient prefer not to take the drug?



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-
- Is the drug available:

Assessing adherence

- We should never assume
- *“Drugs don’t work in patients who don’t take them” – C. Everett Koop, M.D.*



Adherence to Bisphosphonates

- Bisphosphonates
 - chronic medications for treatment and prevention of osteoporosis
- Importance of adhering to bisphosphonates?
 - Osteoporosis poses a significant burden to health and health care costs
 - Adhering to medications is key to preventing osteoporosis and/or fragility fractures



Adherence to Bisphosphonates

- Bisphosphonate adherence is poor
 - 20-30% discontinue the drug as early as within 6 months
- Patients need to take bisphosphonates consistently for at least 6 months to derive benefit from therapy



Research Question

- How can adherence to bisphosphonates be improved in community pharmacy practice?



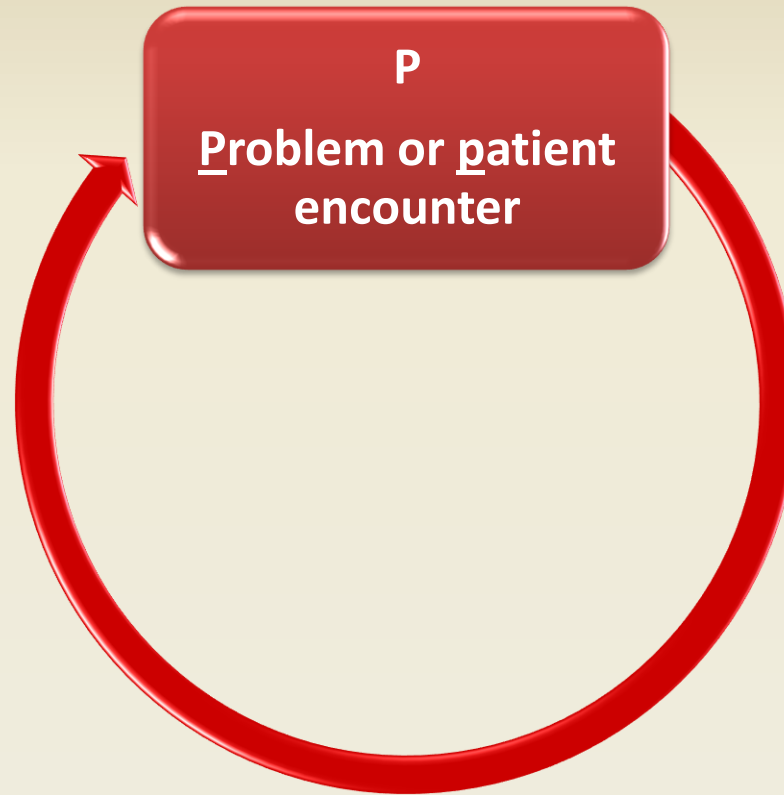
Using the PASSAction Framework



The PASSAction Framework



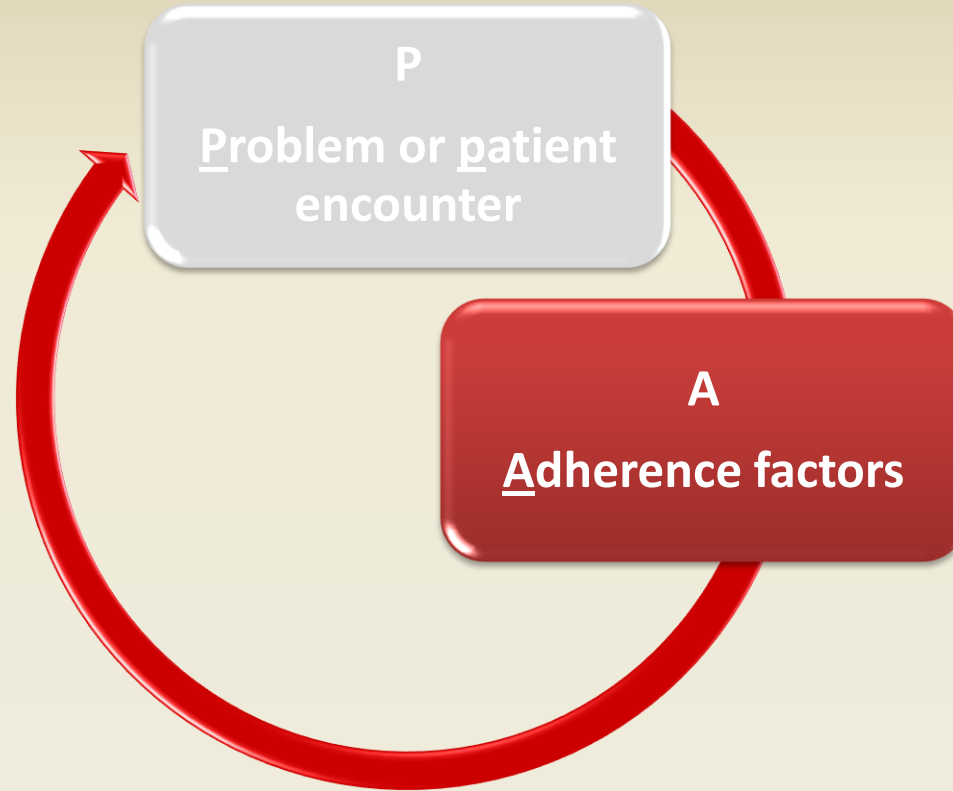
P – Problem or Patient Encounter



P – Problem or Patient Encounter



A – Adherence Factors

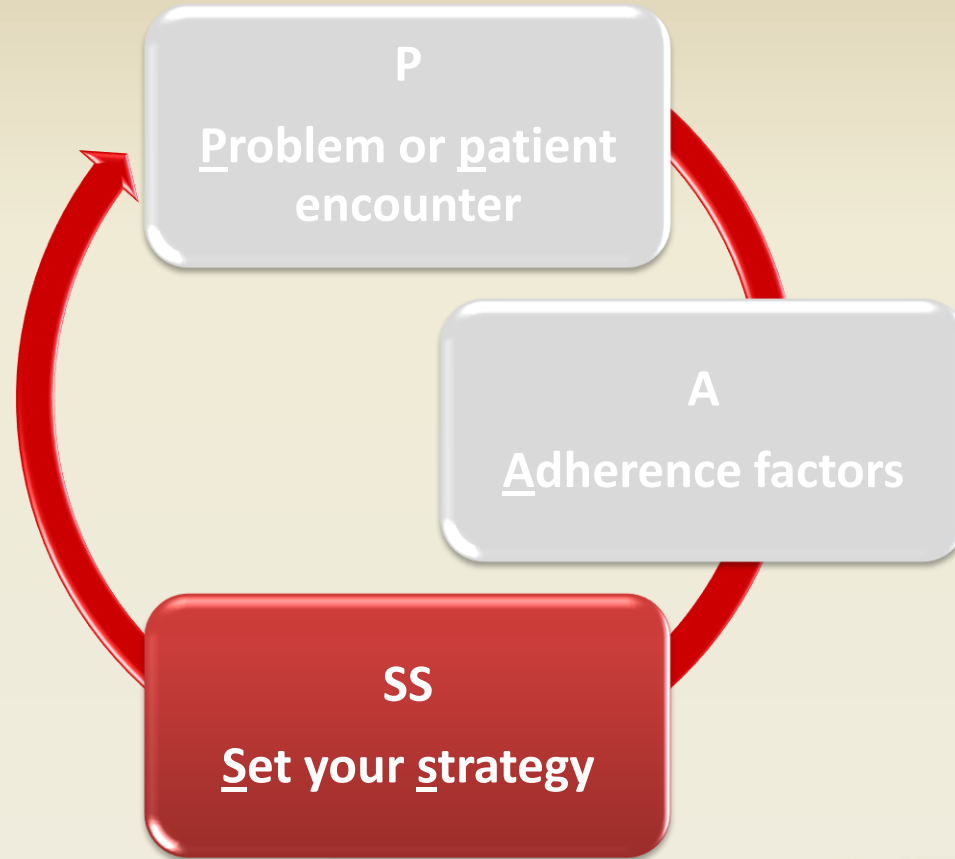


Adherence Factors

- Complex **administration** instructions
- Lack of standardized medication **information**
- **Asymptomatic** nature of the disease
- Lack of **belief** in the purpose or benefits of taking the medication
- Lack of trusting and supportive patient-health care provider **relationships**



SS – **S**et Your **S**trategy

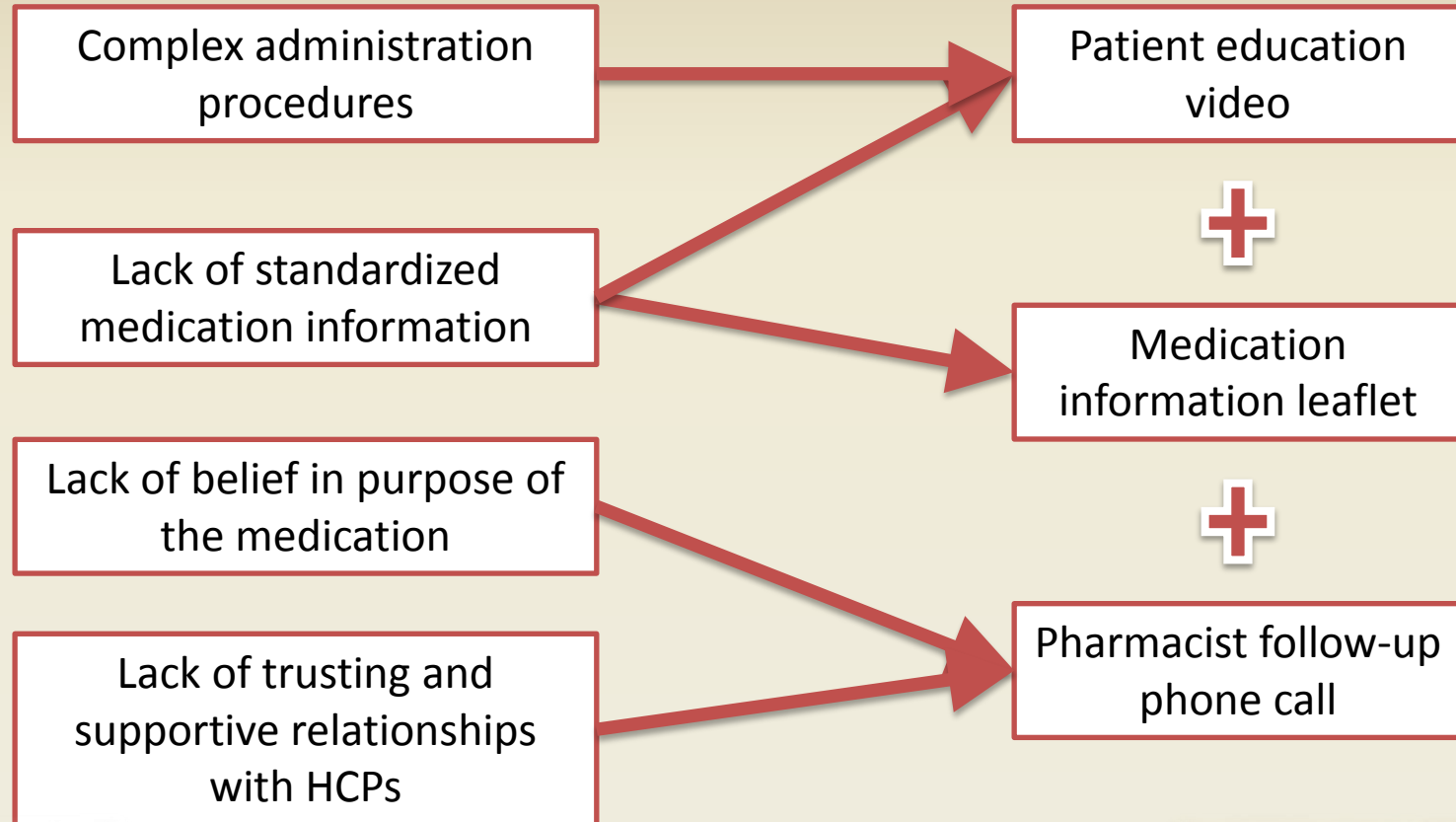


How can bisphosphonate adherence be improved?

- Strategies to improve adherence:
 - Use a multifaceted approach
 - Present educational information in multiple forms (audio, visual, tactile)



How can bisphosphonate adherence be improved?



Intervention 1:

Patient education video

- Describes purpose of the medication
- Demonstrates administration procedures
- Provides tips for establishing a medication-taking system
- http://www.youtube.com/watch?v=jdUrTx3Uk_jw



Intervention 2: Medication Information Leaflet

- Common uses
- How to use the medication
- Possible side effects



Intervention 3:

Pharmacist follow-up phone call

- Reinforce the purpose and benefits of taking the medication
- Reinforce proper administration procedures
- Encourage patients to address any questions or concerns about osteoporosis and/or bisphosphonate therapy



How do we measure adherence?

- **ADEOS Questionnaire: Adherence Evaluation of Osteoporosis**
- Qualitative, patient-reported adherence
- 12 questions with answer choices
- Validated:
 - Postmenopausal women with osteoporosis
 - Taking bisphosphonate therapy



Action



Study Design



**Patient recruitment at
selected pharmacy site**



Patients answer ADEOS
(pre-intervention)



Patients watch a 3-minute
educational video clip and
receive information leaflet



Patient receives a follow-
up phone call from the
pharmacist



Patients answer ADEOS
(post-intervention)

2-3 weeks

2-3 weeks

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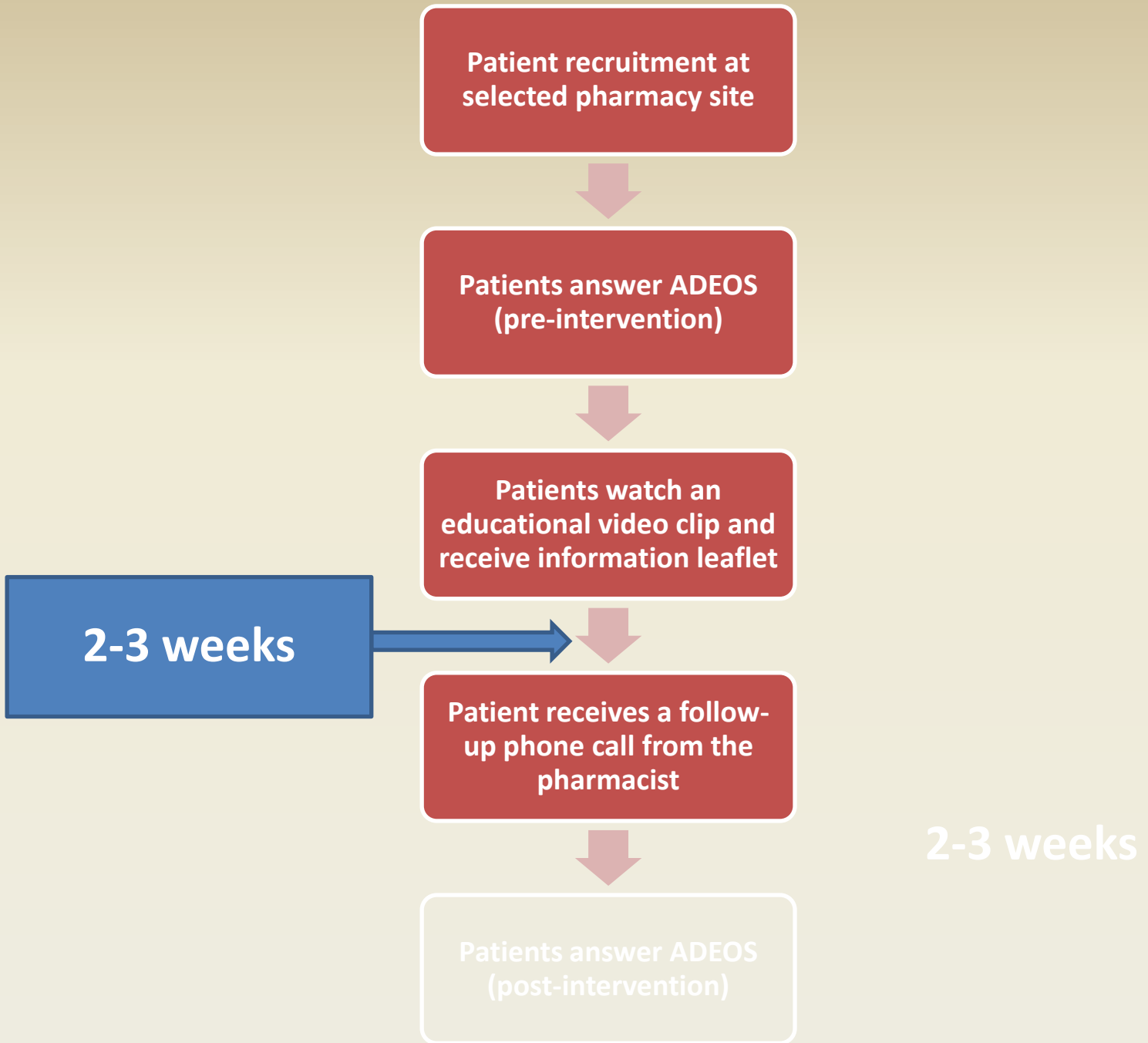
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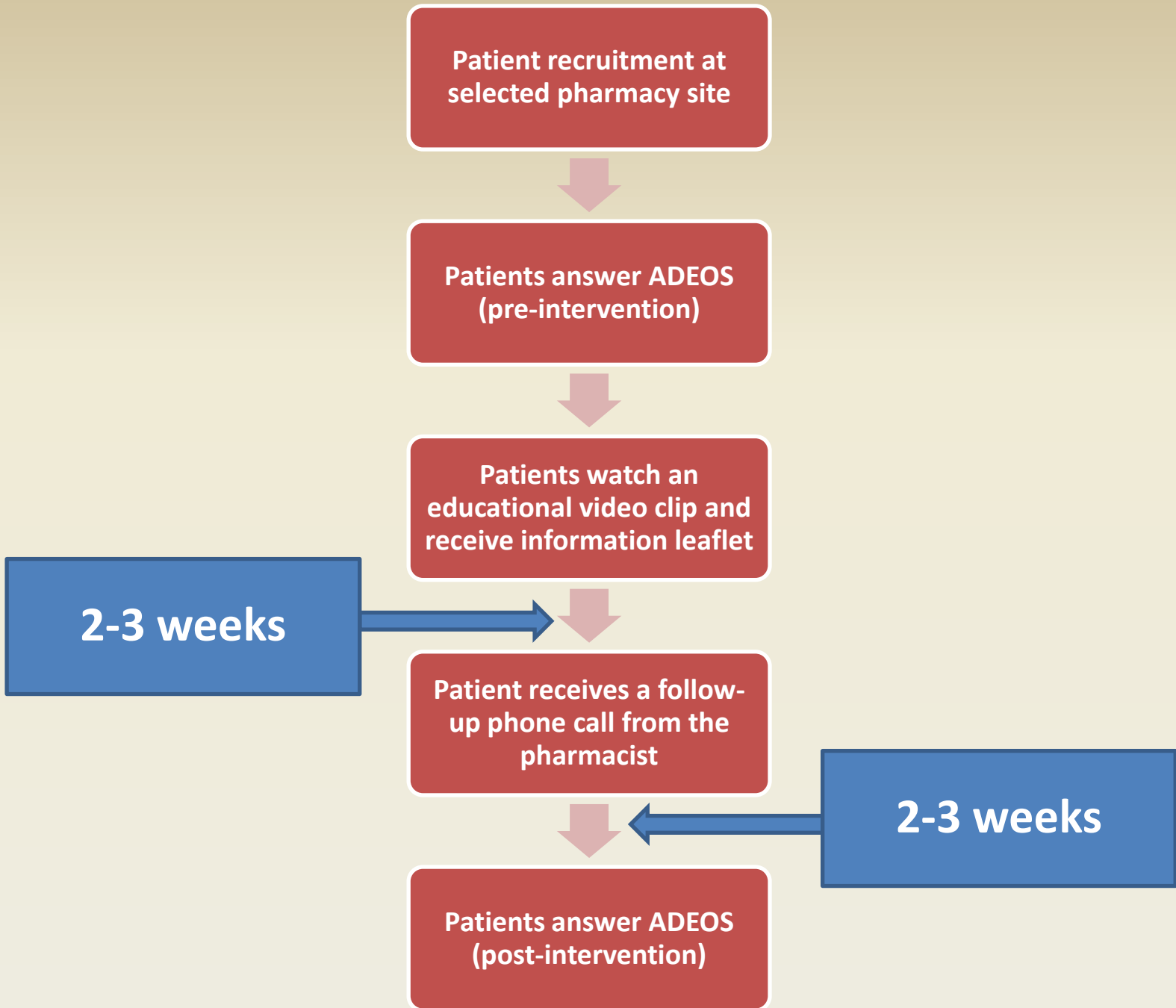


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Implications

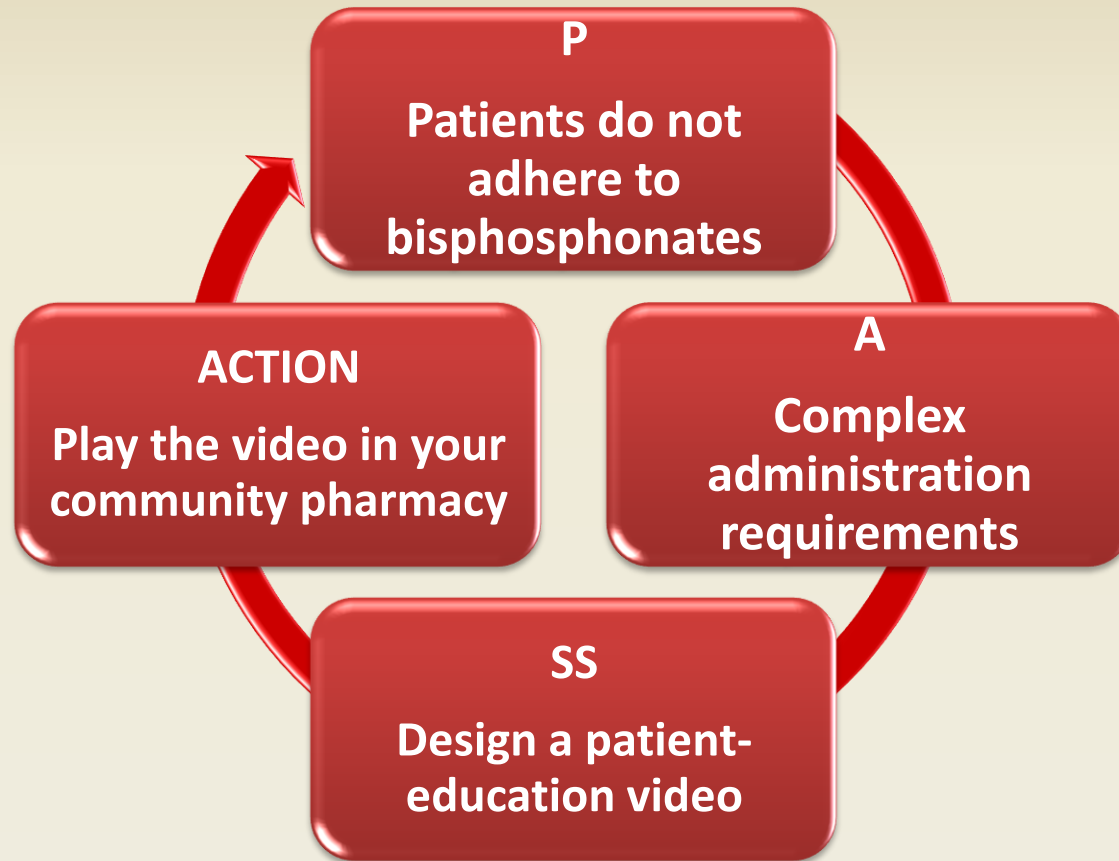


What can we learn from this?

- Look beyond the “paper case”
- Reflect on co-op experiences and connect the dots
- Students learn to develop a **system** such as PASSAction to identify and resolve adherence issues as they enter real-world practice



The PASSAction Framework



What can we learn from this?

- Understanding and addressing medication non-adherence is crucial in **training pharmacy students to become patient-centered clinicians**



Discussion

- Do you take medications or know of anyone who does?
- How can you apply the PASSAction framework to identify and resolve any adherence issues?
- Additional examples:
 - Patient misunderstands instructions: “take with food”
 - Patient recently diagnosed with diabetes and prescribed 6 new medications
 - As a result of a shortage of a combination drug, a patient began receiving the medication as its 2 component parts



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