

Who's first? Prioritization of prescription validation in the Emergency Room

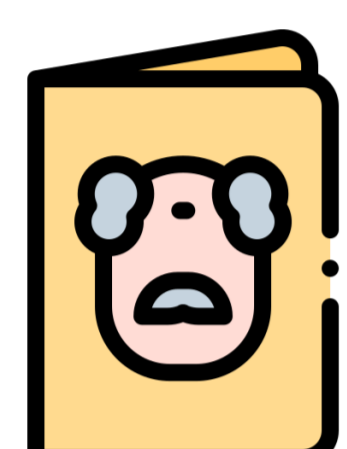
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BACKGROUND AND IMPORTANCE

- WHO estimates a projected shortfall of 11 million health workers by 2030, mostly in low- and lower-middle income countries. Therefore, tasks optimization and/or prioritization are necessary for the near future.



Chronic complex patients (CCP) are more likely to have worse health outcomes compared to the rest of the population.



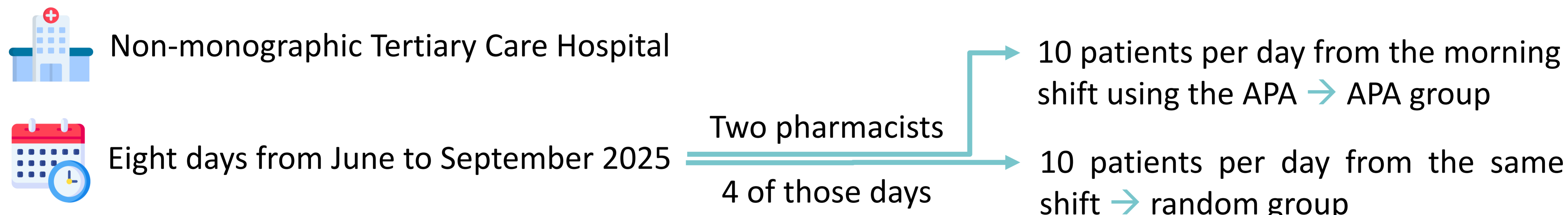
High-alert medications (HAM) are drugs that bear a heightened risk of causing significant patient harm when they are used in error.

AIM AND OBJECTIVES

- ✓ Evaluate the impact of an automatic prioritization algorithm (APA) for prescription validation in the Emergency Room (ER).

MATERIAL AND METHODS

- An APA was available for the hospital pharmacy team from March 2025. Said APA lists patients according to clinical variables (renal failure, dyselectrolytemia, etc.) and prescription reconciliation variables (omission of chronic medication, polypharmacy, omission of administration of relevant drugs, etc.), assigning a score. Theoretically, the higher the score, the higher the benefit of prescription validation.



- Pharmacist interventions and presence of HAM were recorded and compared between the two groups using Chi square test in STATA[®]. The APA also identified CCP.

RESULTS

APA GROUP (n=40)	RANDOM GROUP (n=40)
13 interventions	2 interventions
p<0.01	
16 HAM prescribed	7 HAM prescribed
p<0.01	

- ✓ 22 CCP were identified pre-validation in the APA group while none were in the non-APA.

CONCLUSION AND RELEVANCE

- The use of the APA multiplied sixfold the number interventions per patient.
- Since CCP were identified beforehand and more HAM were detected, interventions were made in better candidates using the APA.
- If there is insufficient time to validate every prescription, this APA will maximize the impact of our work in the ER.

