

# A Quality Improvement Project: Implementation of the WHO ETAT Triage Protocol at Quang Tri General Hospital in Vietnam

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## Background

- In hospitals, deaths often occur in the first 24 hours of admission and many are preventable with appropriate recognition of very ill children.
- The World Health Organization (WHO) created the Emergency Triage Assessment and Treatment (ETAT) curriculum to help train hospital staffs how to identify patients who need emergent or urgent care.
- ETAT guideline have successfully been implemented resource-limited settings including, but not limited to, Guatemala, Nepal and Rwanda.

## Needs Assessment

- Quang Tri General Hospital has a 12-bed emergency department that sees on average 15 pediatric patients/day.
- Due to the lack of pediatric-specific triage care, patients are seen first-come-first serve, leading to delayed recognition of serious illness.



Figure 1: Quang Tri General Hospital is a 500-bed hospital located in the north central coast region of Vietnam

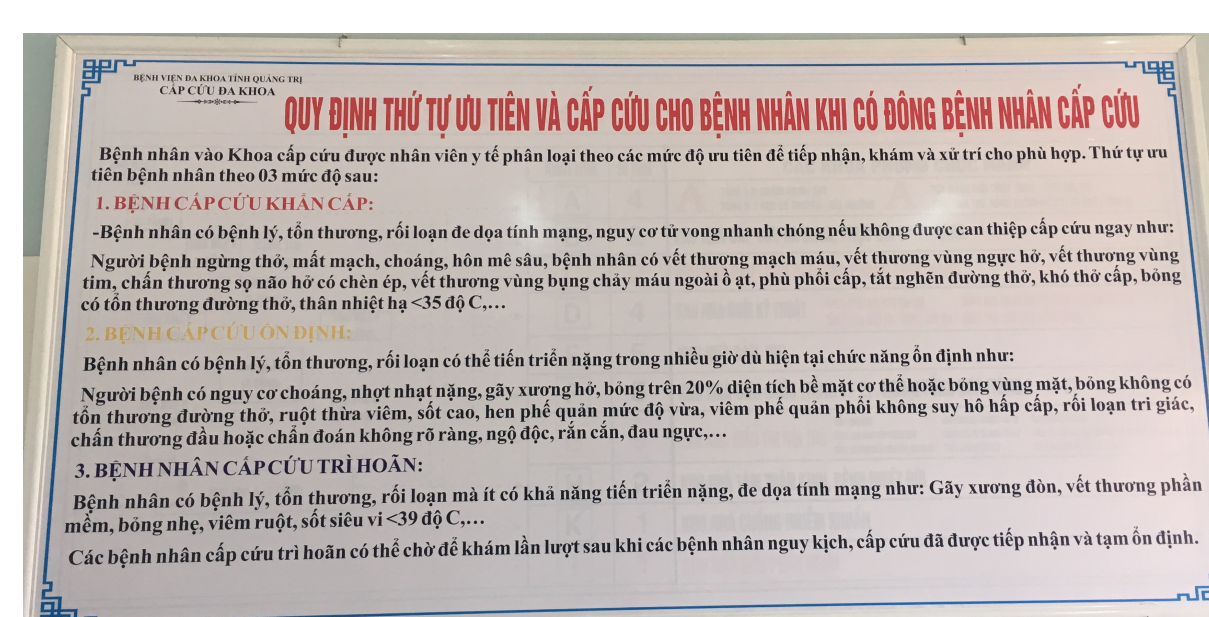


Figure 2: Pediatric patients under 16 years-old are triaged based on an adult protocol.

## Purpose

- To provide guidance to ED staffs on triaging infants and children presenting with signs of severe illness.
- To assess knowledge and attitude towards triage prior to and following the implementation of the WHO ETAT protocol.
- To provide timely treatment and ultimately improve health outcomes including length of stay.
- To compare our data and outcomes with other countries who have implemented the ETAT protocol.

## Conceptual Model

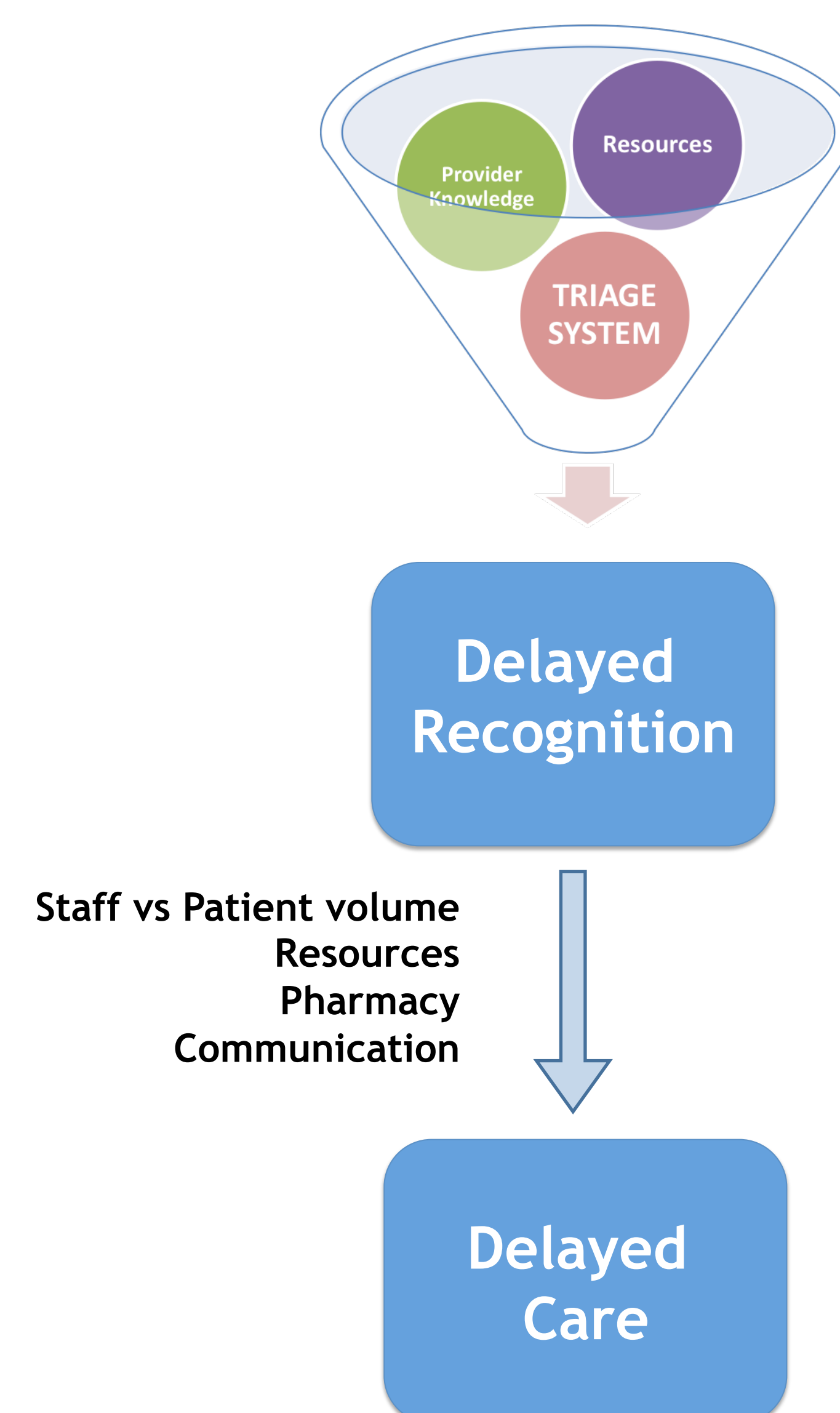


Figure 3: Delayed recognition of illness is a multifactorial problem. The WHO ETAT curriculum helps address one of the key factors, the triage system, to provide timely treatments and to improve health outcomes.

### HOW TO TRIAGE PEDIATRIC PATIENTS:

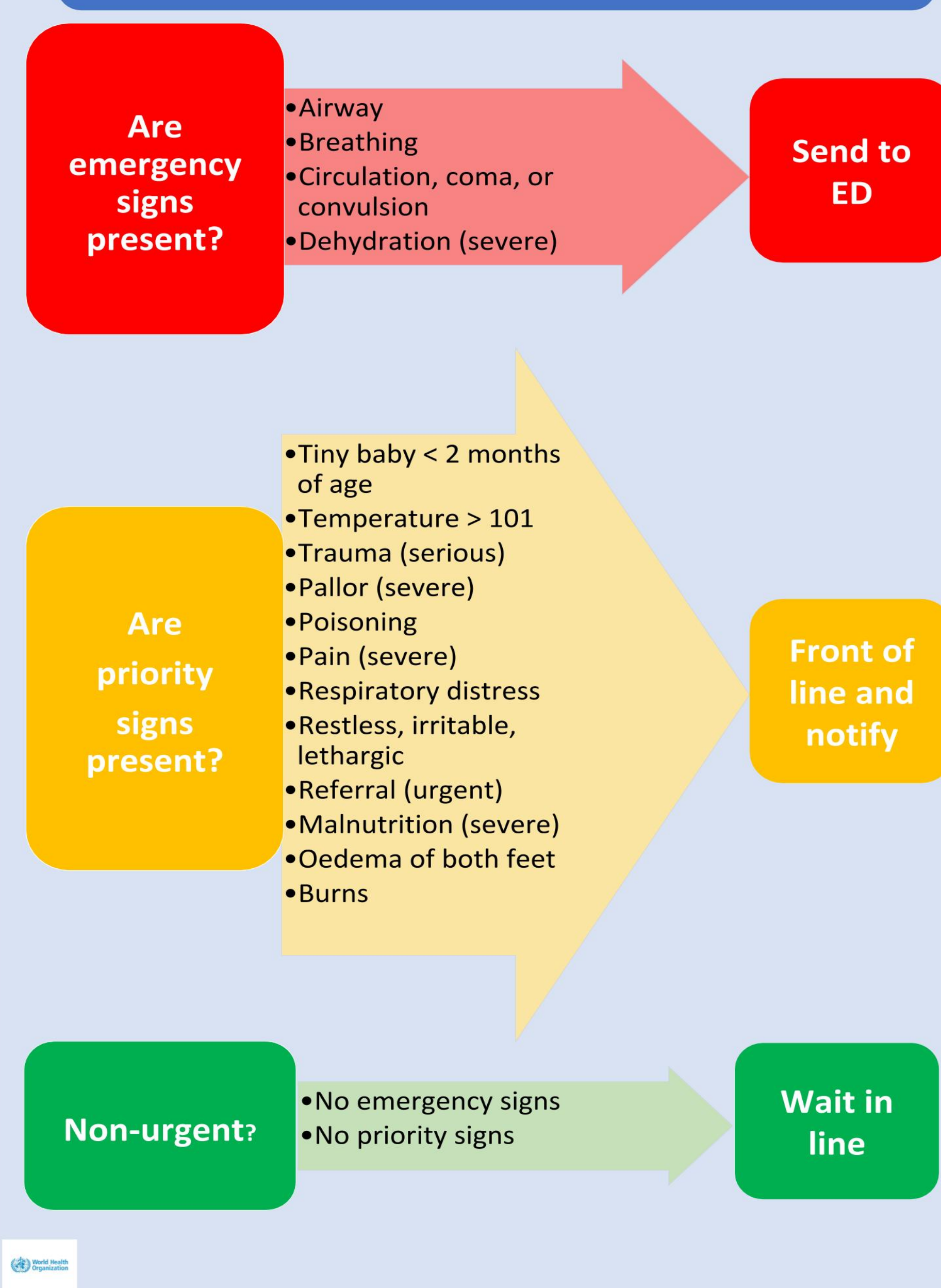


Figure 4: Poster of a step-wise triage protocol, derived from the WHO ETAT Curriculum Module 1. Designed by Jen Min, MD and Oliva Hoang, MD.

## Methods

- A quality improvement project utilizing retrospective and prospective analysis of pre- and post-intervention data.
- Morbidity and mortality data will be collected on all patients 16 years of age or younger seen in the emergency department at Quang Tri General Hospital between 2017 and 2020.
- Post-intervention data from 2021 and 2022 will be collected using the same criteria for comparison.

## Outcomes

- Primary outcomes include: (1) To provide guidance to ED staffs on triaging infants and children presenting with signs of severe illness (2) To provide timely treatment and ultimately improve health outcomes including length of stay, morbidity, and mortality
- Secondary outcomes include: To assess changes in staff knowledge and attitude towards triage, before and after the implementation of the WHO ETAT curriculum

## Conclusions

- We expect that teaching Module 1 of the ETAT course and implementing an enhanced triage system in a low-resource hospital will decrease pediatric morbidity and mortality and improve staff's knowledge and attitudes towards triage.
- We hope this triage system will be sustainable and that staff will continue using it in the long-run.

## References

- Molyneux E, et al. Improved triage and emergency care for children reduces inpatient mortality in a resource-constrained setting. Bulletin of the World Health Organization. 2006; 84:314-319.
- World Health Organization. Emergency Triage Assessment and Treatment (ETAT). Manual for participants. Module One: Triage and the "ABCD" concept.