Improving Clinical Management With Data: The Malawi Experience

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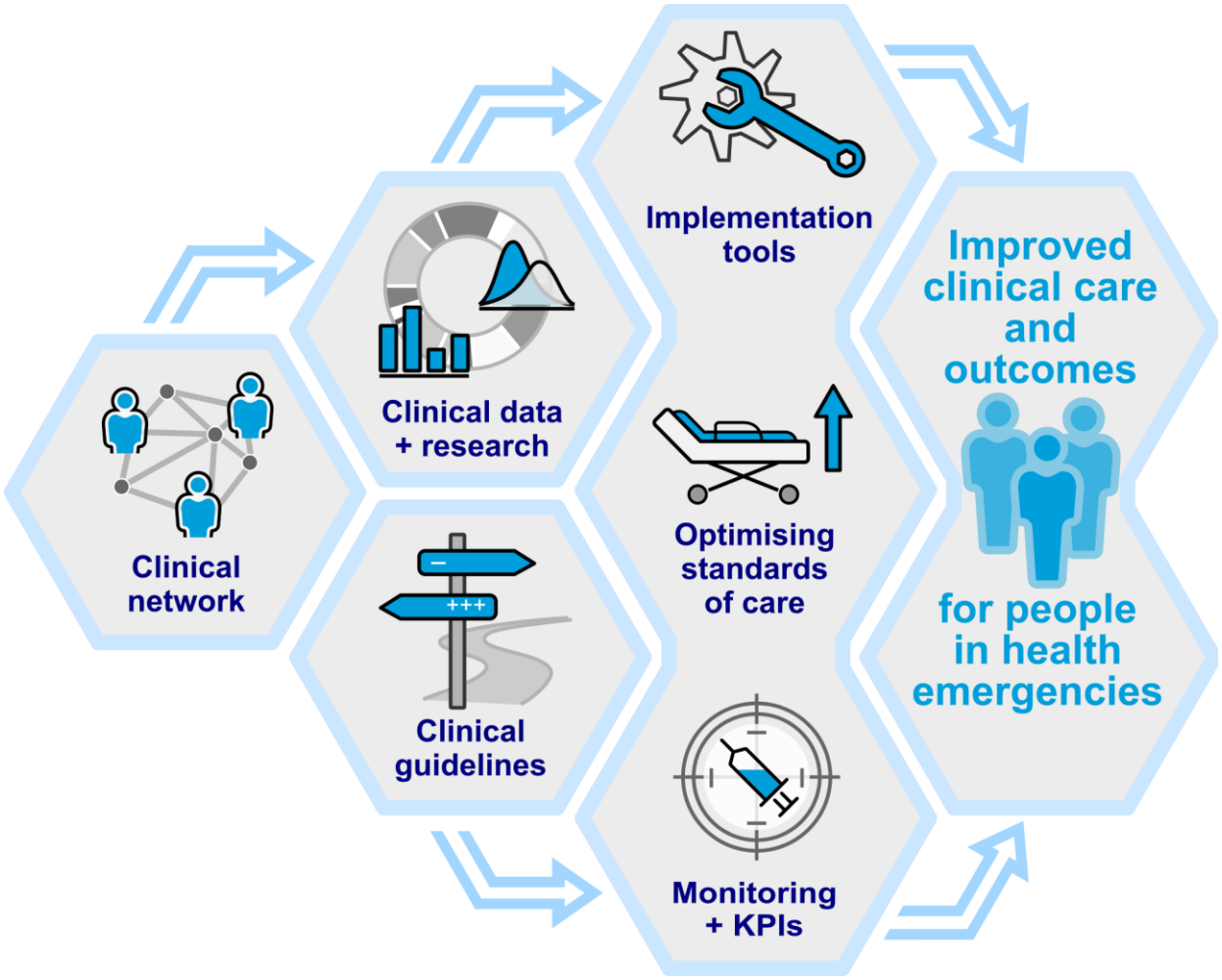
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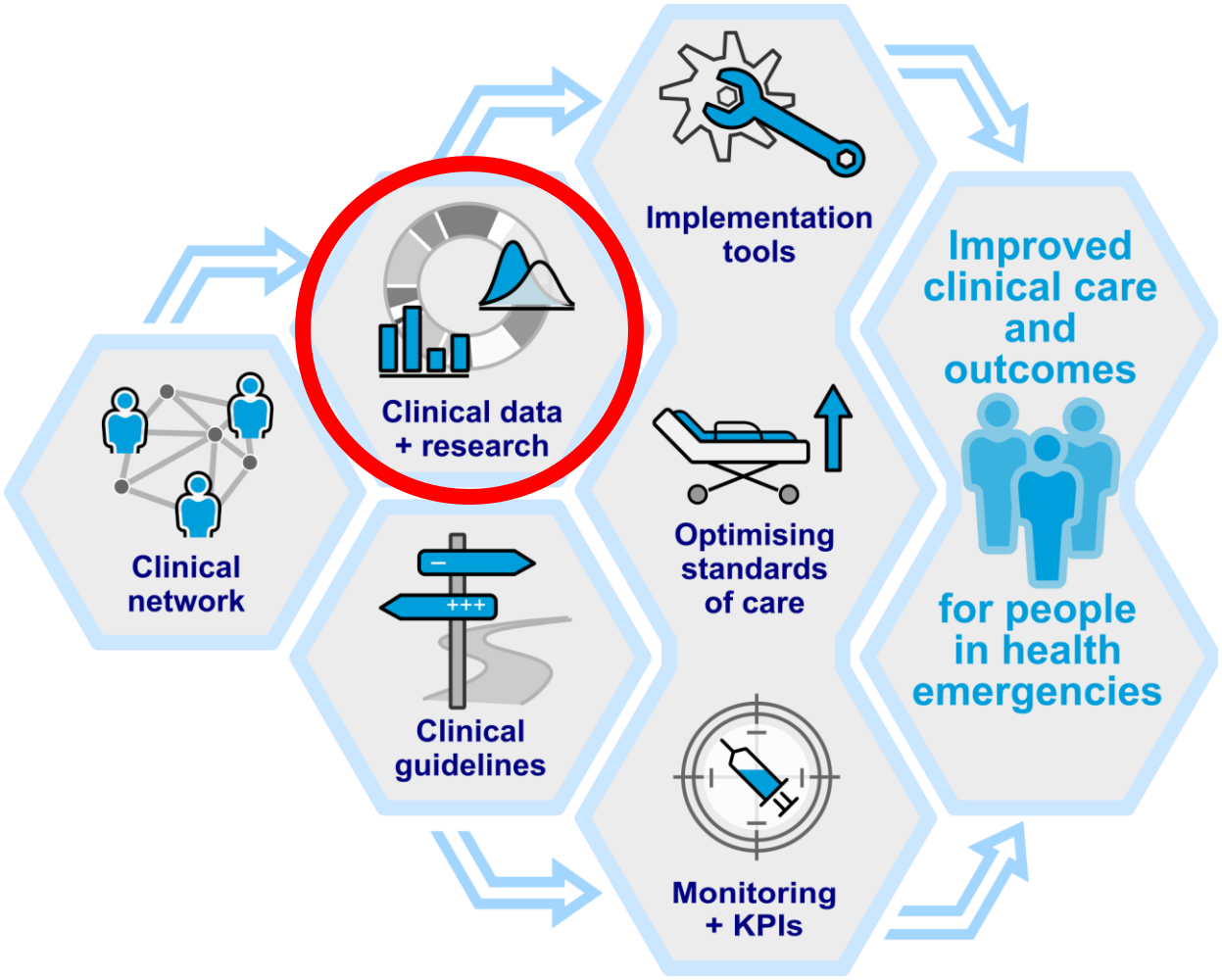
Clinical data + research
Clinical guidelines
Implementation tools
Optimising standards of care
Monitoring + KPIs
Improved clinical care and outcomes
for people in health emergencies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WHO Global Clinical Platform

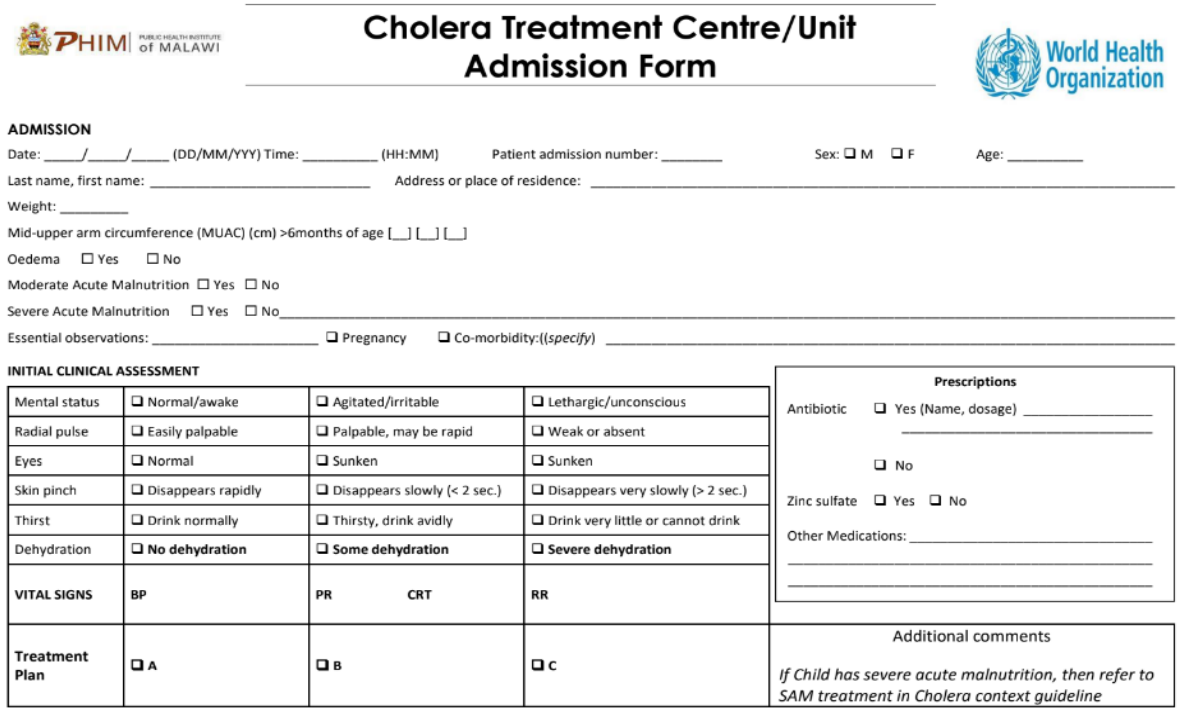
Introduction and Objectives

- Malawi registered 58 730 cholera cases
- National case fatality rate of 3.0% (1759 deaths)
- Epidemiological data is the usual focus
- Clinical data on patients can complement and be used to enhance care

Objective: determine the feasibility of collecting patient level data during the Malawi cholera outbreak.

Methodology

- Data collection from patients admitted with cholera
- in 3 high burden cholera treatment units
  - in Lilongwe, Malawi
- Information from patient notes, and asking questions
- Entered into a WHO standardized forms on portable electronic devices



PHIM PUBLIC HEALTH INSTITUTE of MALAWI

Cholera Treatment Centre/Unit Admission Form

World Health Organization

ADMISSION

Date: ____/____/____ (DD/MM/YYY) Time: _____ (HH:MM) Patient admission number: _____ Sex: ❑ M ❑ F Age: _____

Last name, first name: _____ Address or place of residence: _____

Weight: _____

Mid-upper arm circumference (MUAC) (cm) >6months of age [__] [__] [__]

Oedema ☐ Yes ☐ No

Moderate Acute Malnutrition ☐ Yes ☐ No

Severe Acute Malnutrition ☐ Yes ☐ No_____

Essential observations: _____ ❑ Pregnancy ❑ Co-morbidity:((*specify*) _____

INITIAL CLINICAL ASSESSMENT

Mental status	❑ Normal/awake	❑ Agitated/irritable	❑ Lethargic/unconscious
Radial pulse	❑ Easily palpable	❑ Palpable, may be rapid	❑ Weak or absent
Eyes	❑ Normal	❑ Sunken	❑ Sunken
Skin pinch	❑ Disappears rapidly	❑ Disappears slowly (< 2 sec.)	❑ Disappears very slowly (> 2 sec.)
Thirst	❑ Drink normally	❑ Thirsty, drink avidly	❑ Drink very little or cannot drink
Dehydration	❑ **No dehydration**	❑ **Some dehydration**	❑ **Severe dehydration**
VITAL SIGNS	**BP**	**PR** **CRT**	**RR**
Treatment Plan	❑ **A**	❑ **B**	❑ **C**

Prescriptions

Antibiotic ❑ Yes (Name, dosage) _____

_____

❑ No

Zinc sulfate ❑ Yes ❑ No

Other Medications: _____

_____

_____

Additional comments

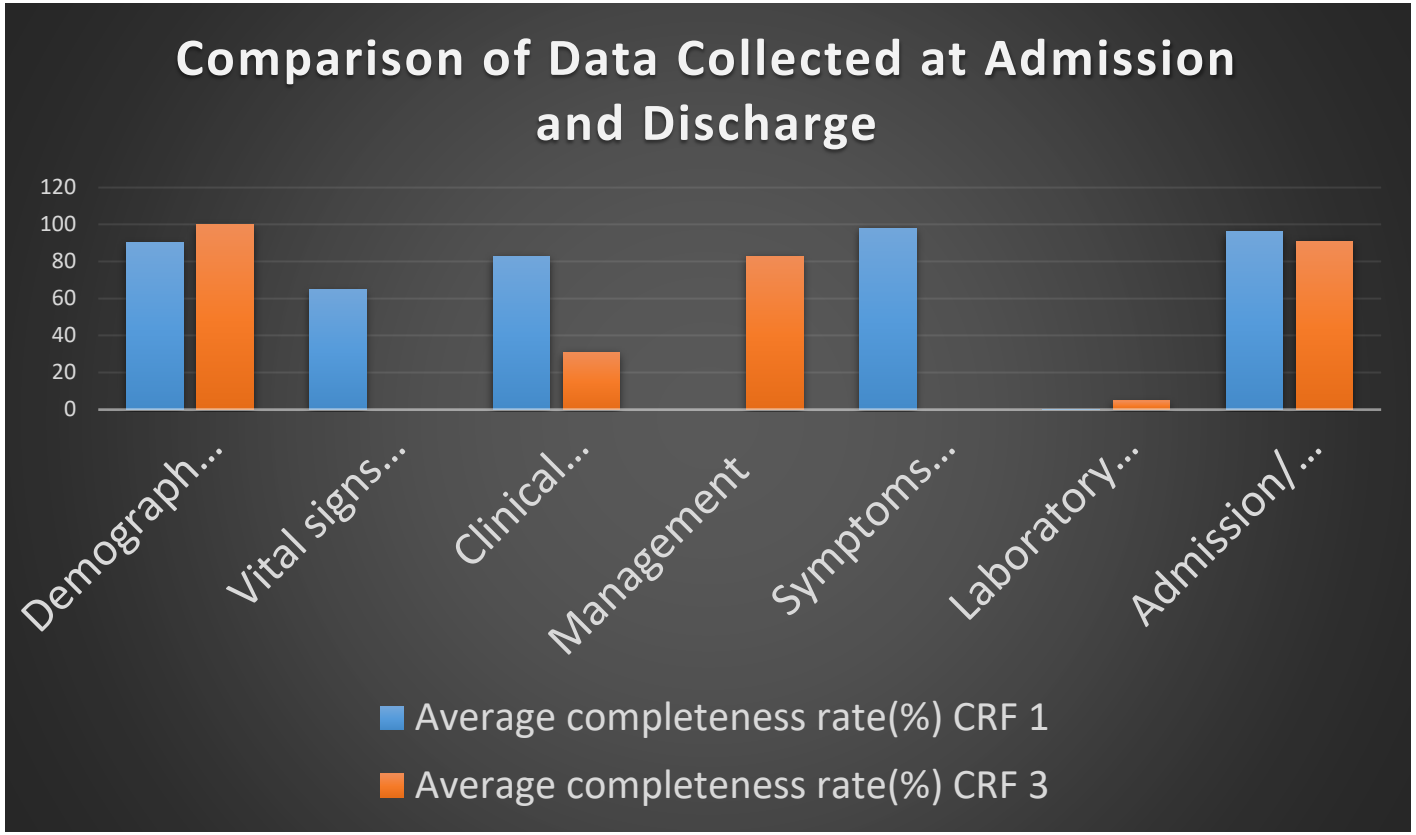
If Child has severe acute malnutrition, then refer to SAM treatment in Cholera context guideline

Results: **How much data was collected ?**

Quality of data collected

- Data collected at 3 time points
- A total of 258 variables
- Overall 74% (in baseline form) compared with 62% in total

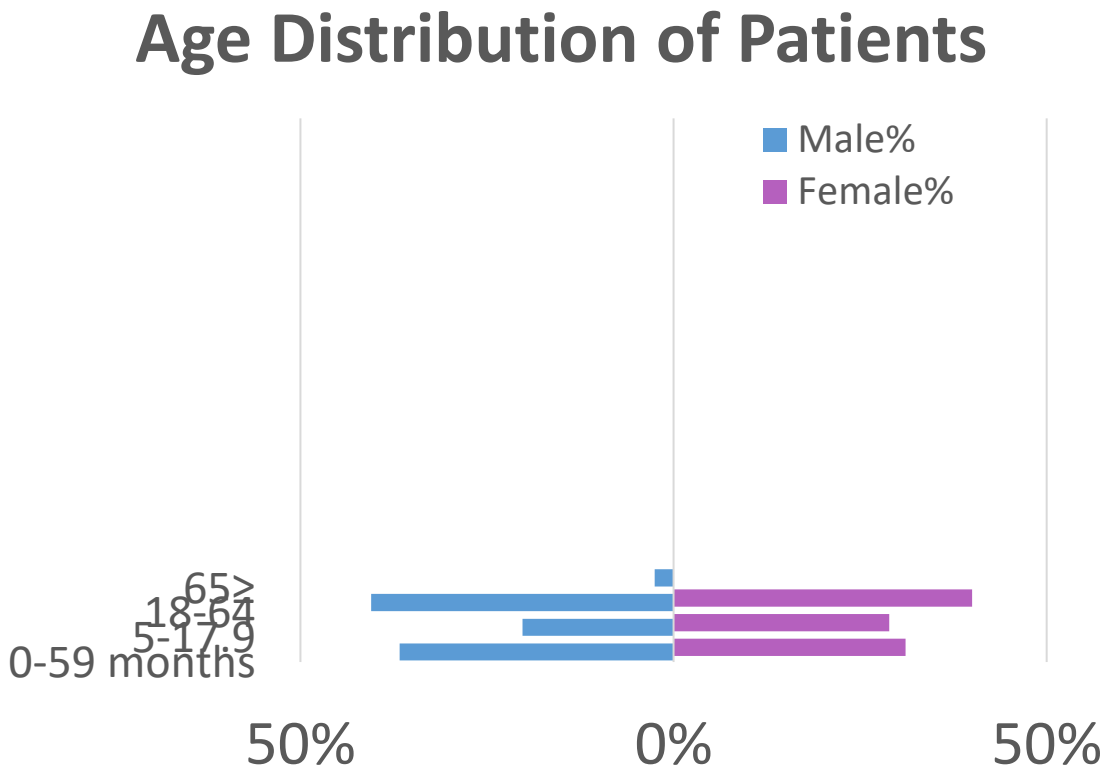
Average completion rate > studies conducted in emergency departments in hospitals (53%,50%:Iran)



Results: What does the data show?

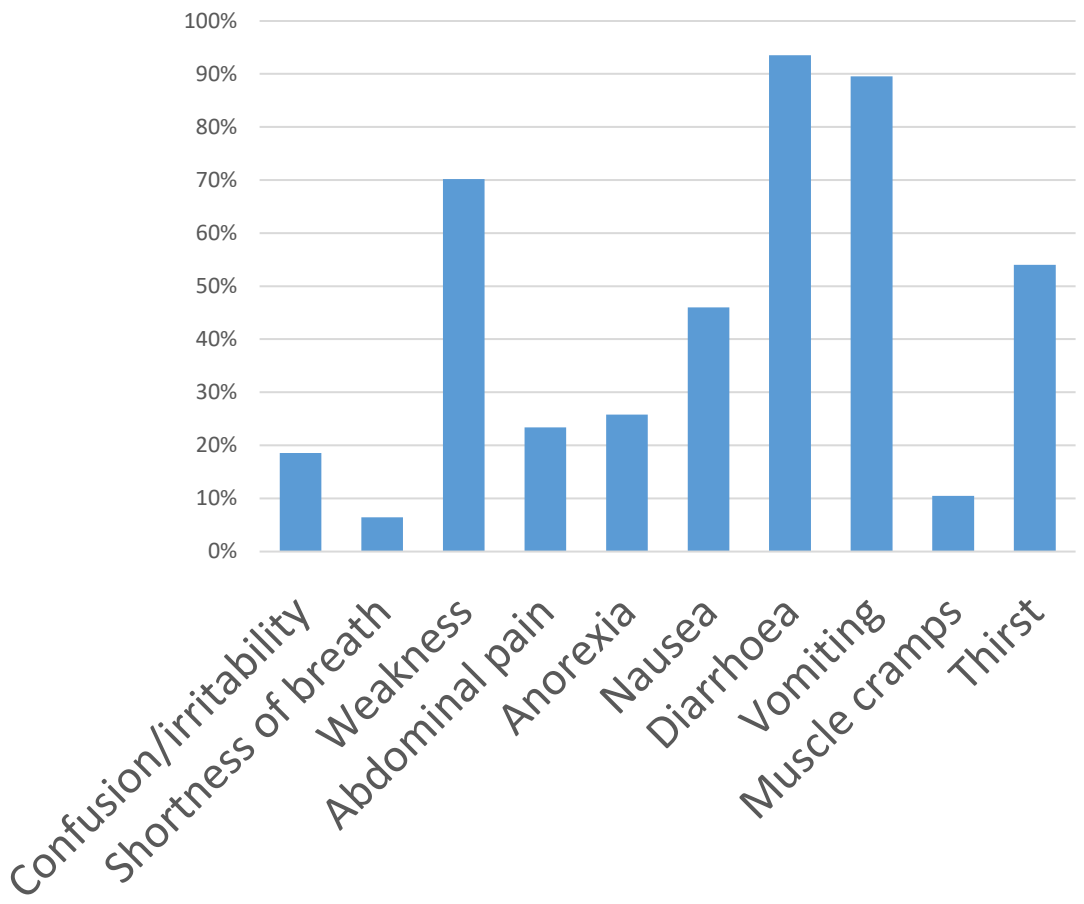
Demographics

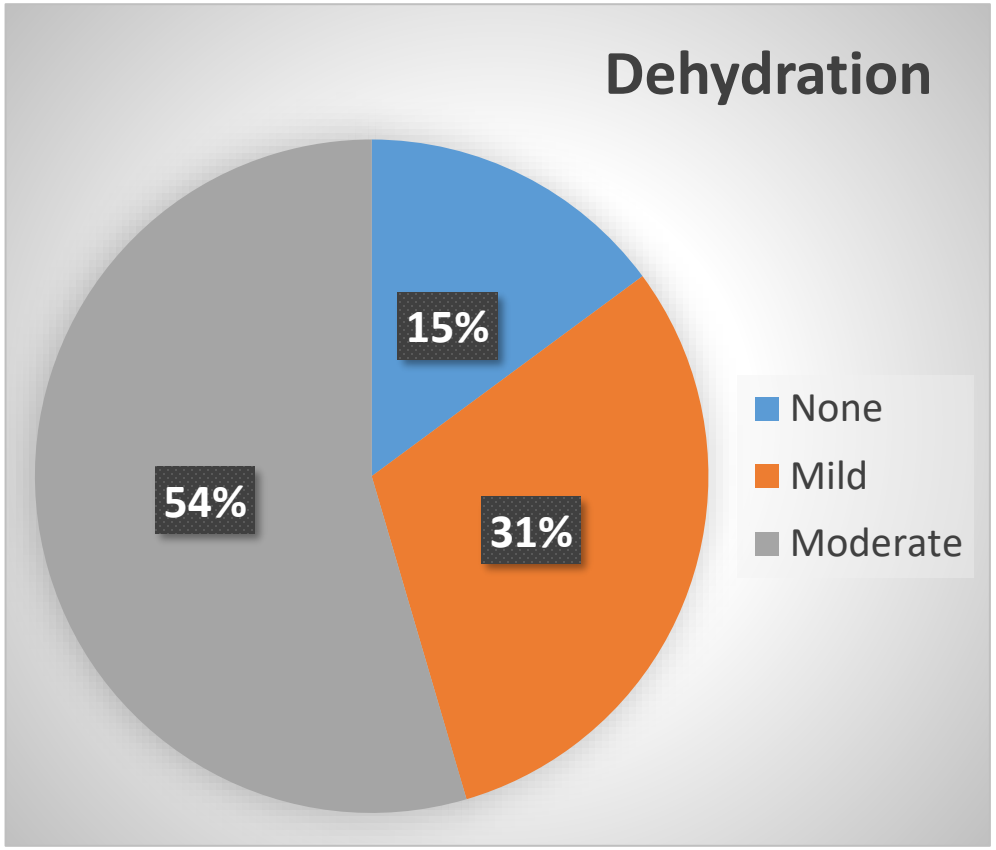
- Age
- Gender
- Recent vaccination



Vital signs and clinical presentation

At arrival at the treatment centre

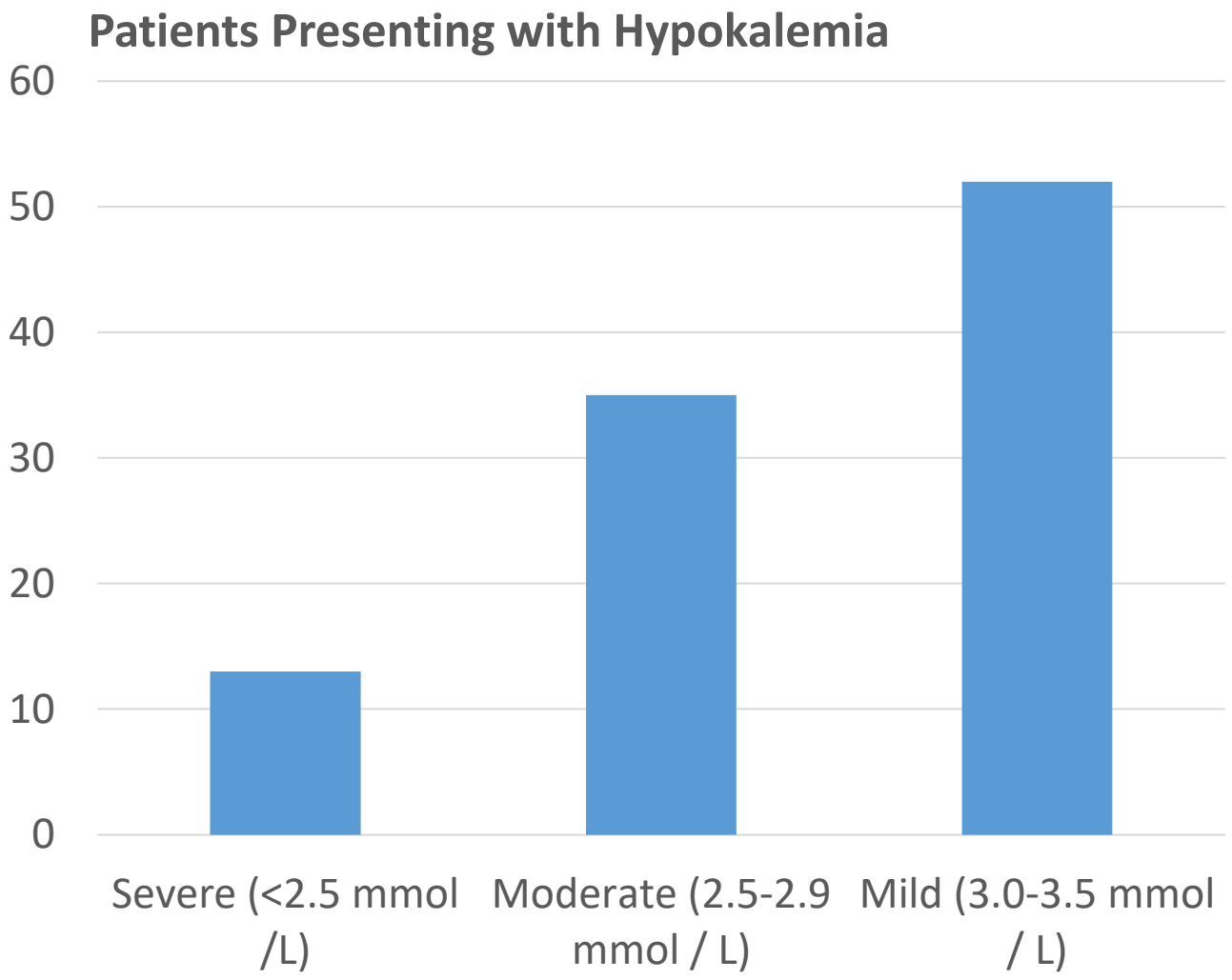




Laboratory Investigations

Serum electrolyte imbalances

- Severe (4/26)
- Moderate (11/26)
- Mild (16/26)



Therapeutic management

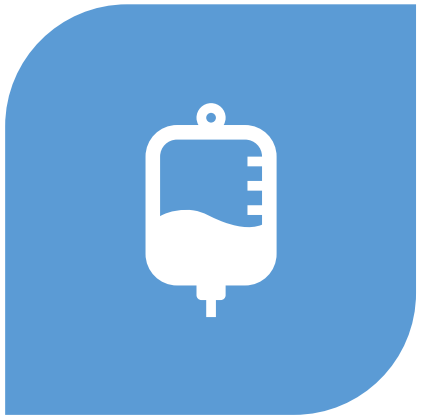
Antibiotics (88%)

azithromycin (50%)

doxycycline(33%)

Oral rehydration solution therapy

(92%)



Intravenous fluid

(90%)

Key Messages

- Data can be collected but requires additional people which can be difficult with a stretched workforce
- Simple clinical insights can direct future enquiry, and improve patient care and outcomes
- Follow-up data capture, and real-time presentation of data is more complex, and are areas of focus for future outbreaks

THANK YOU!!