
CHANGE IN ACUITY OBSERVED FOLLOWING IMPLEMENTATION OF THE INTERAGENCY INTEGRATED TRIAGE TOOL AT VILA CENTRAL HOSPITAL, EMERGENCY DEPARTMENT, SHEFA PROVINCE, 2021-2022

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INTRODUCTION

- In May 2021, Vila Central Hospital Emergency Department (VCH-ED) introduced the Interagency Integrated Triage Tool (IITT) which was created by the World Health Organisation (WHO), Medecins Sans Frontieres (MSF) and ICRC for resource limited environments₂
- Prior to the implementation VCH-ED had no formal system in place to assess and monitor the acuity of patients presenting to the department
- The aim of this study was to assess the changes in triage category after the implementation of IITT



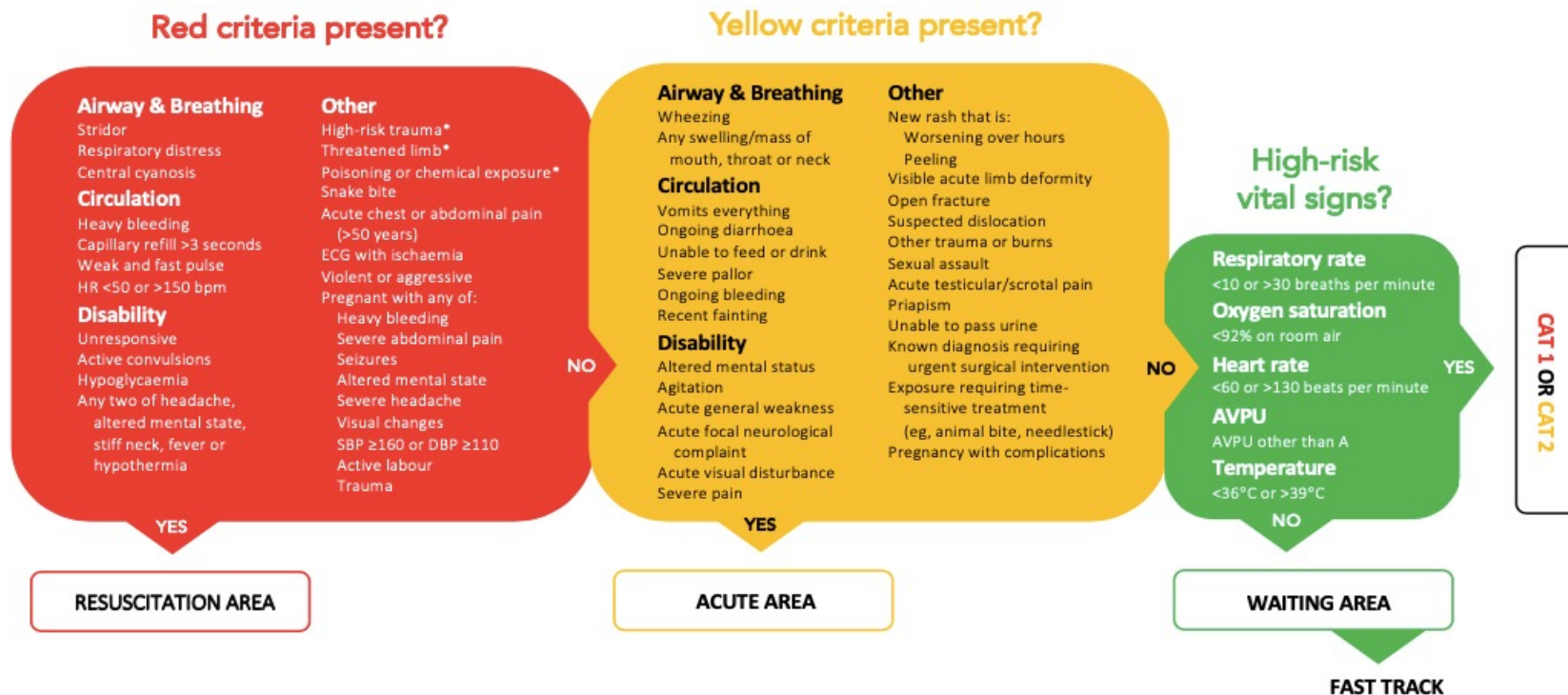
INTRODUCTION

- Triage systems such as the IITT -
 - Used to quickly identify and prioritise patient care according to acuity
 - Assist in providing a fair service to all humans
 - Provide structure and organisation in departments
 - Effective use in resource limited environments
- Triage is about urgency – not severity, complexity, social status or any other factor



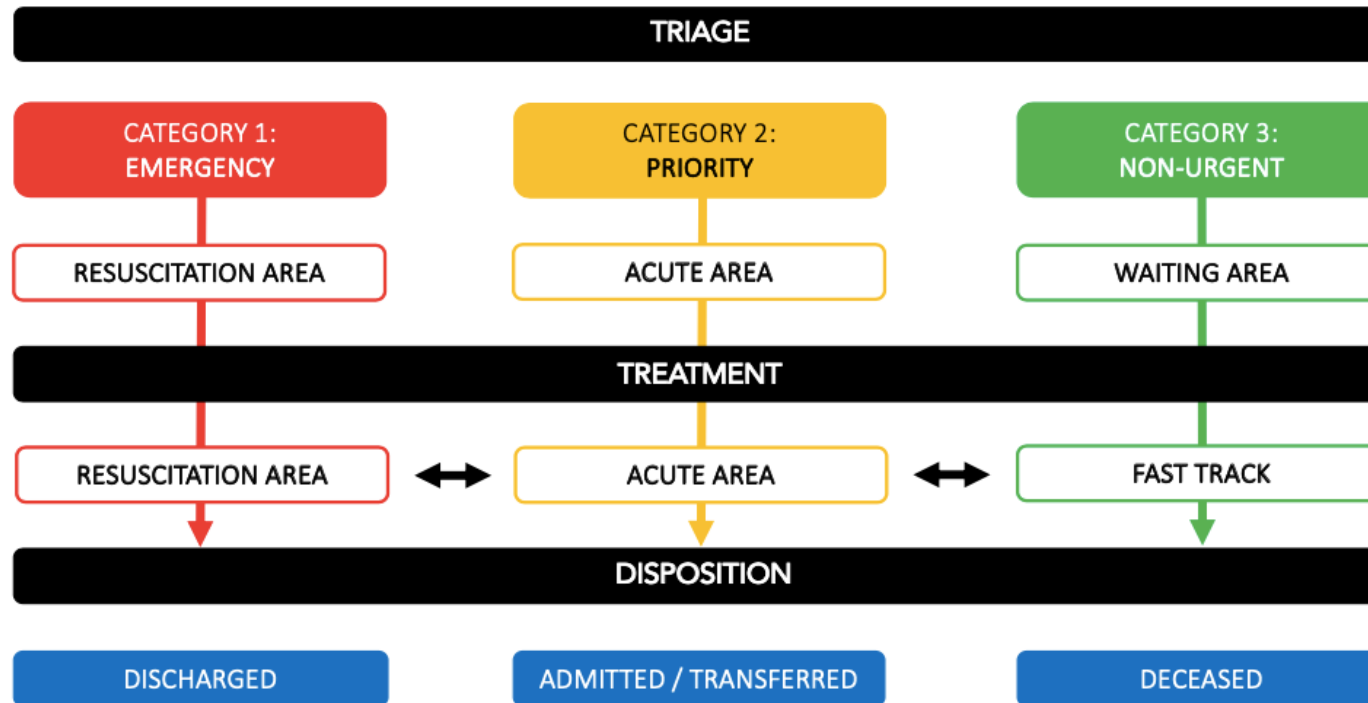
INTERAGENCY INTEGRATED TRIAGE TOOL

Interagency Integrated Triage Tool Adult assessment pathway



IITT PATIENT FLOW

Interagency Integrated Triage Tool Patient flow



TRIAGE TRAINING

- In May 2021, a total of 48 clinicians at VCH were trained over 6 days
- Clinicians trained - OPD, ED, School of Nursing Educators, NSM, COPD, NCD and ENT clinic
- Each clinician completed a full day of training using the 'Tembo Triage Training' created by MSF
- Training was supported by
 - Emergency clinicians through the Australian Volunteers Program (AVP) and Australasian College of Emergency Medicine- Global Emergency Care (ACEM- GEC)



METHOD

JUNE 2021 TO JUNE 2022

VCH ED patient presentations

- Total patients- 14,722
- Average per month- 1,132



METHOD

- For each new patient presenting to VCH-ED, clinicians completed a IITT paper-based registration form
- Data collected on each form included;
 - Patient demographics,
 - Presenting complaint
 - Observation
 - Treatment
 - Acuity-
 - **Category 1: Emergency**
 - **Category 2: Priority**
 - **Category 3: Non-Urgent**
 - Patient disposition

Vila Central Hospital
EMERGENCY & OUTPATIENT DEPARTMENT REGISTRATION FORM

First name(s): Surname:
 Age: DOB: [] M [] F MRN: NID:
 Current address:
 Phone number:
 Mother's name: Island of origin:
 Father's name:

REGISTRATION
 Date: Time: Location: [] Emergency Department [] Outpatient Department
 Referral details: [] Referred patient Referring facility: Referring province:

TRIAGE
 ED/OPD visit type: [] New [] Return - unscheduled [] Return - scheduled [] Medication supply only
 Chief complaint:
 RR:bpm SpO2:% HR:bpm CR:sec BP:mmHg
 AVPU: Temp:°C BSL:mmol/L Pain score: Weight:kg

Triage category:
 Cat 1: **EMERGENCY** 1 2 3
 Cat 2: **PRIORITY**
 Cat 3: **NON-URGENT**

Stream: [] Resus [] Acute [] Fast track
 Re-triage category: 1 2 3
 Time: Reason:

TREATMENT
 Date: Time: Staff member:
 Investigations: [] X-ray [] Ultrasound [] Blood tests [] MO [] NO [] NA
 Management: [] Med. chart [] Tetanus imm. [] Sutures [] Dressings [] Asthma rx. [] Med. cert.

DISPOSITION
 [] DISCHARGE [] DECEASED [] ADMISSION
 Date: Time: Date: Time: REFERRAL TO INPATIENT TEAM
 [] Left without being seen [] Dead on arrival TRANSFER TO WARD / DISCHARGE
 ED diagnosis: Date: Time: Team:
 Date: Time: Ward:

SURVEILLANCE
 Communicable: [] AFR [] PF [] ILI [] WD [] DZCLI [] AFP [] NT [] Diphtheria [] Pertussis [] STI
 Non-communicable: [] MVA [] Work-related injury [] Other trauma [] Selfharm [] Domestic violence
 [] AMI/Stroke [] Diabetes complications [] Asthma [] COPD [] Marine poisoning

RESEARCH
 Critical diagnoses: [] Severe trauma [] Severe head injury [] Ruptured ectopic [] Septic shock [] AMI
 [] Severe asthma/COPD/PNA [] Acute bacterial meningitis [] Acute surgical abdomen

Date entered into registry: (CLERK SIGNATURE)

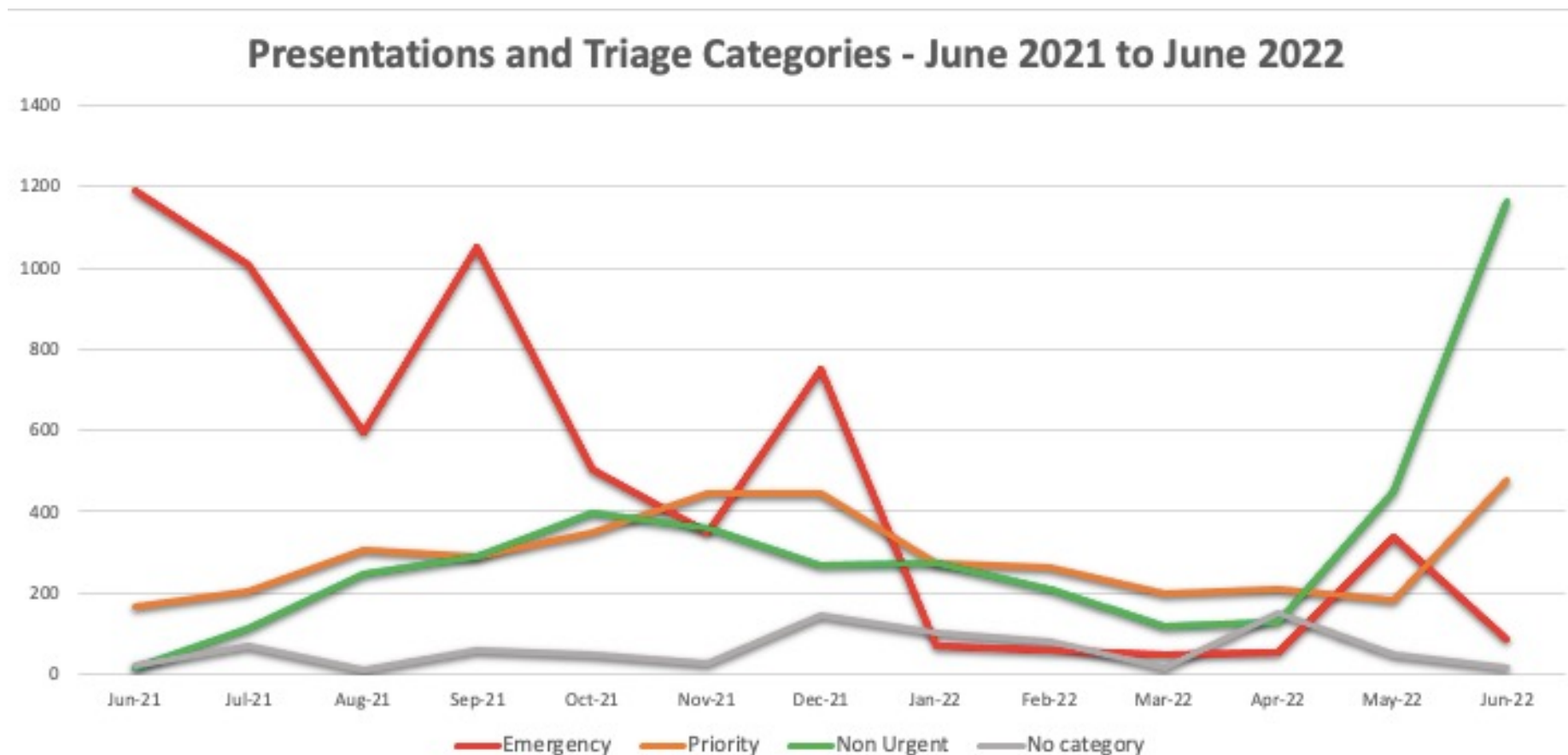


METHOD

- IITT registration forms were then entered into a custom electronic database by clerical staff members in VCH-ED
- The monthly total patient presentations for each triage category as well as patient dispositions was extracted from the electronic database for the period of June 2021 to June 2022 (13 month period)
- A descriptive analysis of acuity was conducted for the period



RESULT- PRESENTATIONS & TRIAGE CATEGORY JUN 2021 - JUN 2022



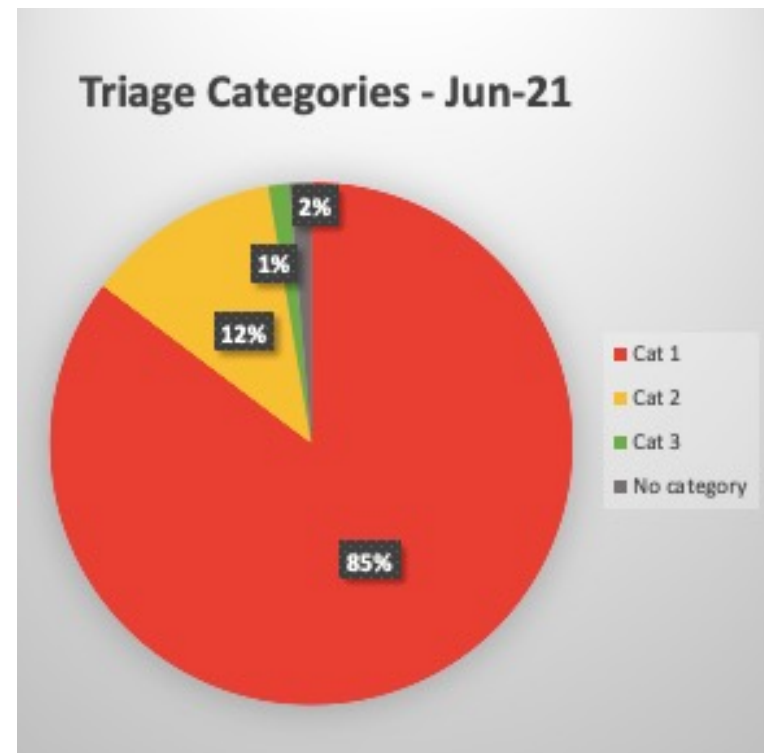
RESULT- TRIAGE CATEGORIES JUNE 2021

85% of patients were triaged as Cat 1

12% of patients were triaged as Cat 2

1% of patients were triaged as Cat 3

2% no documented triage category



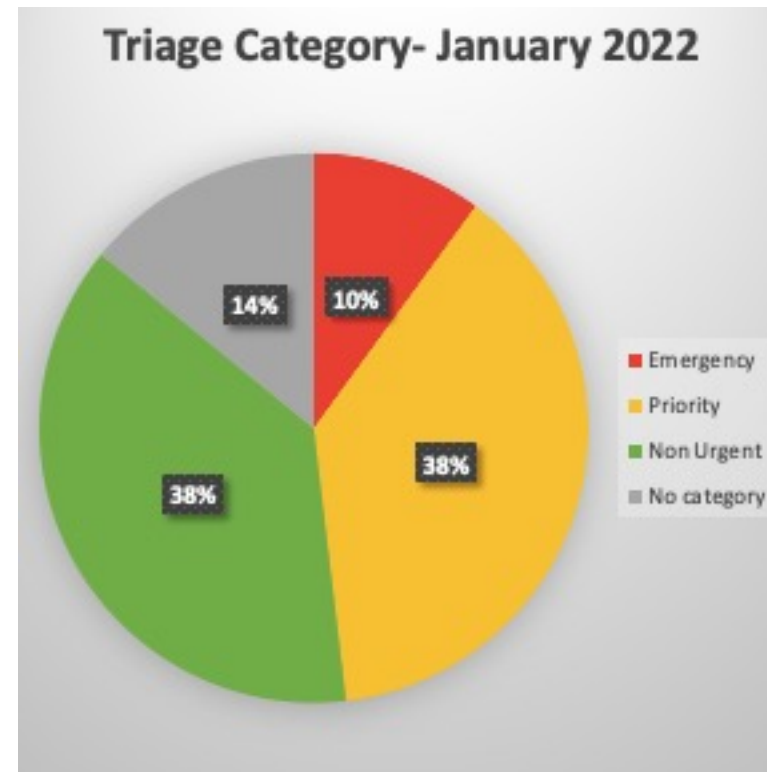
RESULT- TRIAGE CATEGORIES JANUARY 2022

10% of patients were triaged as Cat 1

38% of patients were triaged as Cat 2

38% of patients were triaged as Cat 3

14% no documented triage category



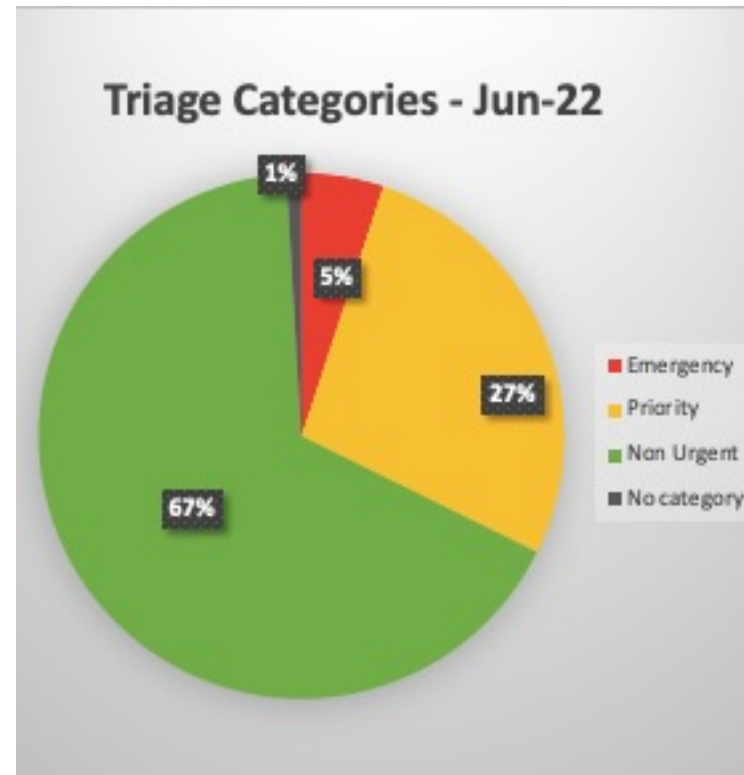
RESULT- TRIAGE CATEGORIES JUNE 2022

5% of patients were triaged as Cat 1

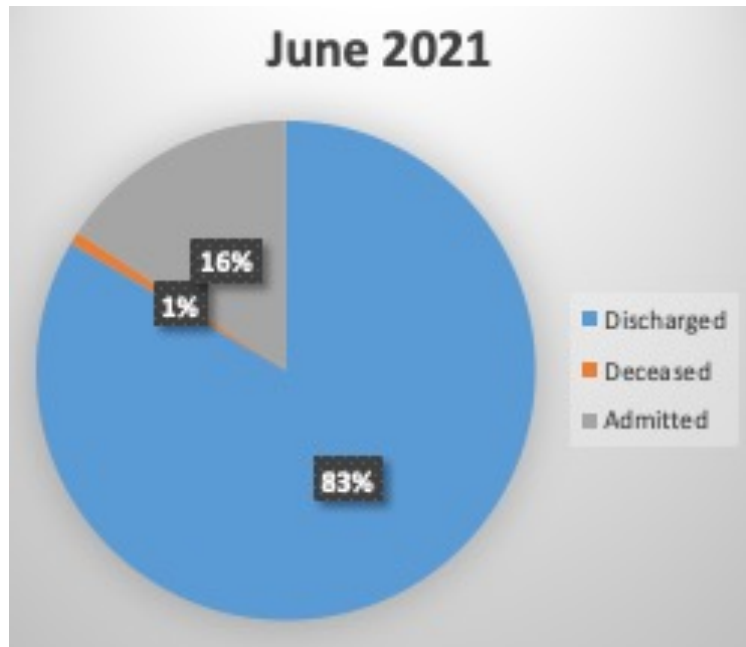
27% of patients were triaged as Cat 2

67% of patients were triaged as Cat 3

1% no documented triage category



RESULT- PATIENT DISPOSITION REVIEW



DISCUSSION

- There has been a considerable change in acuity observed in patients presenting to VCH-ED between June 2021 and June 2022
- There was a steady decline in Emergency patients and a steady increase in Priority and Non Urgent presentations which was expected with the implantation of triage
- We observed a reduction in overall presentation to the VCH-ED during the start of 2022 with considerable changes in acuity of patient presentations which could be due to a number of factors, such as;
 - Decentralisation of OPD
 - Reduction in staff overall including doctors and nurses from OPD
 - Increased workload
 - Education needs of clinicians



LIMITATIONS

- Data used is likely to be influenced by factors such as;
 - Clinician capacity
 - Demands for care
 - Limited staffing
 - Incomplete IIT form documentation
 - Implementation of new processes in the department
 - Lack of triage knowledge of some clinicians- not all Emergency clinicians received initial training



RECOMMENDATIONS / IMPLICATIONS

- Complete a manual audit of the completed triage forms to look at under-triaging and over-triaging of patients
- Ensure clinicians complete the IITT forms correctly
- Regular dedicated nursing education on triage

- Explore the impacts of decentralization of OPD on VCH-ED
- Explore options for an Electronic Medical Record (EMR) system in the future



REFERENCES AND ACKNOWLEDGEMENTS

References

1. FitzGerald G, Jelinek GA, Scott D, et al. Emergency department triage revisited. *Emergency Medicine Journal* 2010;**27**:86-92
2. Mitchell R, Bue O, Nou G, et al. Validation of the Interagency Integrated Triage Tool in a resource-limited, urban emergency department in Papua New Guinea: a pilot study. *The Lancet regional health Western Pacific*. 2021;**13**:100194-100194

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