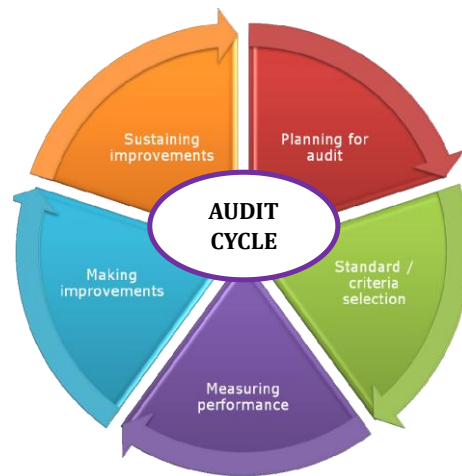




DEDER GENERAL HOSPITAL
EMERGENCY INJURY AND CRITICAL CARE DEPARTMENT



**CLINICAL AUDIT TO IMPROVE THE QUALITY OF CLINICAL CARE OF
TRAUMA MANAGEMENT IN THE EMERGENCY DEPARTMENT**

By: Murad Amin (BSc Nurse)- Emergency Dept head

Dr. Samuel Shimelis (MD, Emergency Director)-Team leader

Advisors:

☞ **HSQU TEAM**

Deder, Oromia

December 2017E.C

Emergency and critical care case team clinical Audit/QI members

S/N	Full Name	Status	Role	Remarks
1.	Dr.Samuel Shimelis	Emergency Director	Chairperson	
2.	Murad Amin	Emergency Head	Secretary	
3.	Wardi Usman	Staff	Deputy Secretary	
4.	Dachas Shamsadin	Staff	Member	
5.	Zabib Abraham	Staff	Member	
6.	Alamudin Sufiyan	Staff	Member	
7.	Yosef Tesfaye	Staff	Member	
8.	Buzu Seyum	Staff	Member	

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Implementation Status of Previous audit PDSA Plan

The previous action plan focused on improving trauma care quality in the Emergency Department. Below is the status update for each recommended action:

Table 1: The implementation status of previous audit PDSA

Action	Implementation Status	Challenges Encountered	Next Steps
Strengthen diagnostic processes	Partially Implemented: Equipment availability was assessed, and some diagnostic resources were procured.	Limited budget for procuring all required resources.	Continue procurement and explore external funding opportunities.
Provide training on trauma protocols	Fully Implemented: A training session was conducted for emergency department staff, covering trauma management.	None.	Schedule periodic refresher training sessions.
Implement fast-track system for investigations	Fully Implemented: Discussions with the radiology department were initiated and structured EMR system was developed.	None.	

INTRODUCTION

The clinical audit aimed to evaluate and improve the quality of trauma care management in the Emergency Department. Trauma care is a critical aspect of emergency medicine, and timely, appropriate management significantly impacts patient outcomes. This audit was conducted to identify gaps in care delivery, ensure adherence to standard protocols, and provide actionable recommendations for quality improvement.

OBJECTIVE

- To improve the quality of clinical care for patients presenting with trauma in the Emergency Department.

Objectives

- To ensure trauma patients presenting to the emergency are appropriately evaluated
- To ensure trauma patients presenting to the emergency are appropriately investigated
- To ensure trauma patients presenting to the emergency are appropriately treated
- To ensure trauma patients presenting to the emergency are appropriately disposed

Methods

Study area & period

The clinical audit was conducted in EOPD of Deder General Hospital from **September 21, 2017E.C to December 20, 2017E.C**

Study design

Retrospective cross-sectional study

Source population

All patients treated in the emergency with in the study period

Study population

All trauma patients treated in the emergency with in the study period

Inclusion criteria

All trauma patients aged 14 and above, treated in the emergency from **September 21, 2017E.C to December 20, 2017E.C**

Exclusion criteria

Patients who arrived 24 hours after sustaining trauma

Sampling technique

A total of 16 medical records (client chart) of the last reporting quarter should be sampled for the audit. The individual client charts were withdrawn by systematic random sampling.

Study Variables

Dependent variables:

Trauma management

Independent Variables

Demographic data, trauma, ABC of live, Mode of arrival, time of arrival
Emergency OPD,

Data collection method

Data extraction sheet was adapted from National clinical audit tool

Data Processing & analysis

Data from extraction sheets was manually verified and entered into the SPSS version 25 software for analysis. The software checked data types, sizes, classifications, and allowable values. Corrections were made, and the findings were presented in tables and figures.

RESULT

The clinical audit revealed an overall compliance rate of **82%** with trauma care standards in the Emergency Department (**Figure 1**)

While aspects such as recording identification information, accurate diagnosis, appropriate treatment, and patient disposition achieved 100% compliance, notable gaps were identified in performing relevant investigations, with a compliance rate of only 71%, falling short of the target by 29%. Acute life-threatening injuries were managed with 91% compliance, reflecting room for improvement in critical care delivery. Despite these gaps, the results demonstrate a strong foundation of adherence to trauma care protocols, highlighting the need for targeted interventions to address specific deficiencies, particularly in diagnostic processes, to ensure comprehensive and high-quality trauma management (**Table 2**).

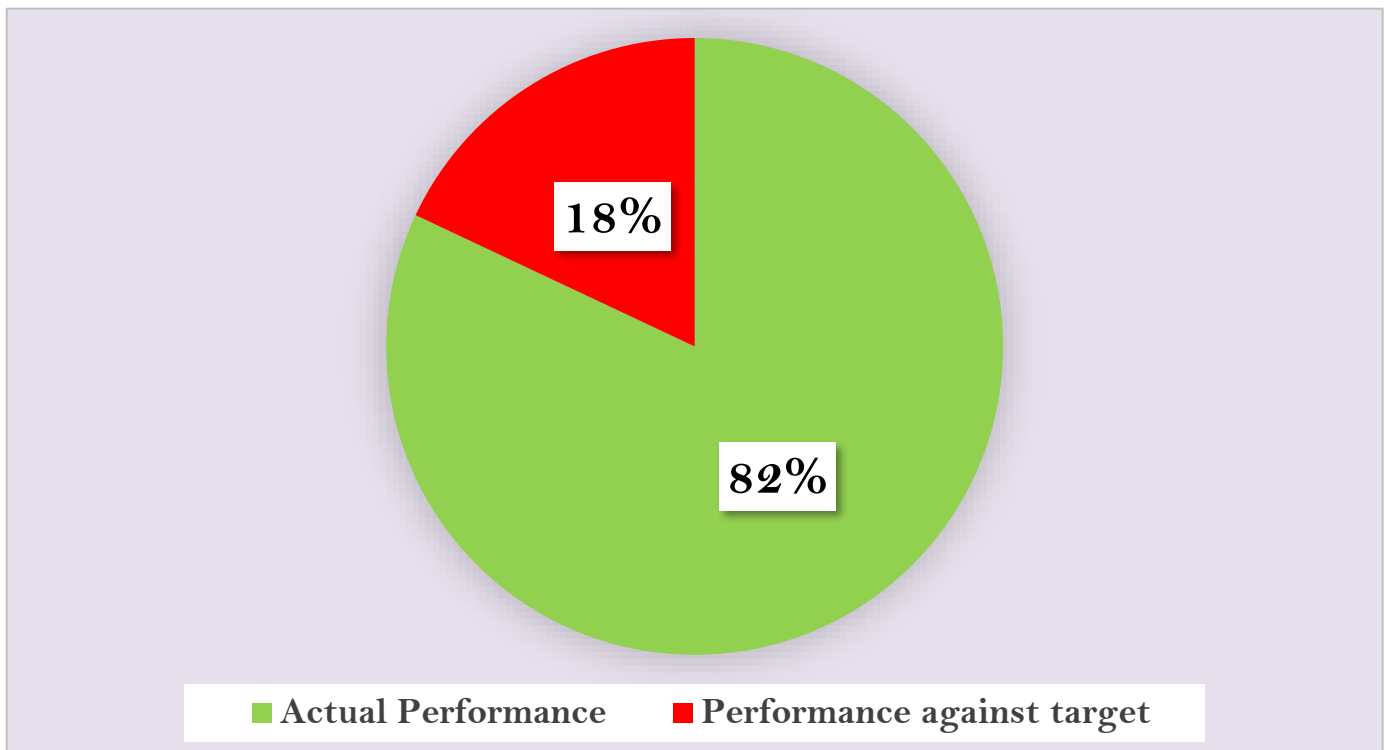


Figure 1: Overall Performance of trauma management in the ED, Dec, 2017E.c

Table 2: ACTUAL PERFORMANCE ANDV PERFORMANCE AGAINST TARGET

Sno	Variables	Target	Actual Performance	Performance against target
1	Identification Information Is Recorded for A Patient Presenting with Trauma	100	100	8
2	Appropriate Evaluation and Management for Acute Life-Threatening Injuries Is Done for A Patient Presenting with Trauma Using Standard Trauma Care Principles	100	91	9
3	Detailed History Taken and Physical Examination Performed for A Patient Presenting with Trauma	100	99	2
4	Relevant Investigation Are Done for A Patient Presenting with Trauma	80	71	30
5	Appropriate Diagnosis Is Made for A Patient Presenting with Trauma	100	100	0
6	Appropriate Treatment Is Provided for A Patient Presenting with Trauma	100	100	
7	Appropriate Patient Disposition Is Done for A Patient Presenting with Trauma	100	100	12
8	Identification Of Care Provider Is Documented for A Patient Presenting with Trauma	100	100	0
9	A patient presenting with trauma died within 48 hours of hospital arrival to the hospital (can be within or outside the emergency department)	4	NA	
	Total Percentage (%)		728/8=82`%	11

Graph showing score for each criterion/standard for emergency management of Trauma patients.

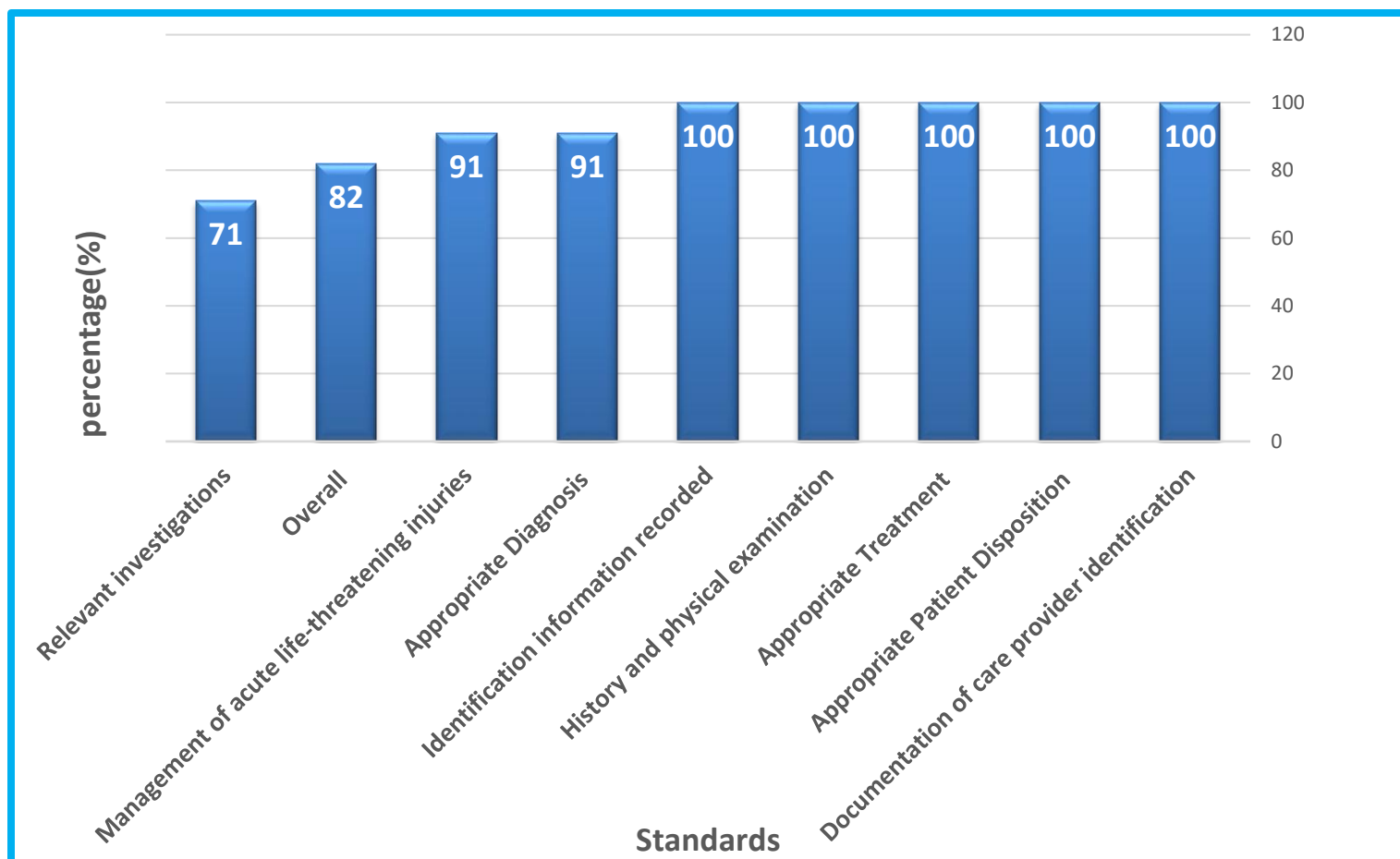


Figure 2: Graph showing score for each criterion/standard for emergency management of trauma patients. Dec, 2017E.C

Discussion

The audit findings highlight overall strong performance in most aspects of trauma care. However, the compliance rate for performing relevant investigations was significantly below the target, with a gap of 30%. This deficiency may be due to resource constraints, delays in diagnostic processes, or inadequate adherence to protocols.

The high compliance in documentation and acute management reflects the department's commitment to trauma care standards. However, targeted efforts are required to address the identified gaps to ensure comprehensive care.

Recommendations

1. Strengthen the process for ordering and performing investigations:
 - Ensure availability of essential diagnostic resources.
 - Establish a fast-track system for trauma cases requiring urgent investigations.
2. Conduct regular training on trauma management protocols.
3. Monitor and evaluate the implementation of corrective actions through periodic audits.
4. Improve interdepartmental coordination to expedite investigations.



DEDER GENERAL HOSPITAL
CLINICAL AUDIT QUALITY IMPROVEMENT PLAN/PDSA FORM

Clinical Audit Title: TO IMPROVE THE QUALITY OF CLINICAL CARE OF TRAUMA MANAGEMENT IN THE EMERGENCY

Clinical Audit Lead: Dr.Samuel Shimelis (GP). Department /Team: EOPD

Date:28/4/2017E.C

	Plan					DO	STUDY	ACT
Recommendation	Actions to address the recommendation/Change idea	Person Responsible	Target Date	Data collection plan		Carry out the plan. Record data, observations and modifications to the plan. Use visual descriptions such as run charts to describe what actually happened	Complete analysis and synthesis. Do the results align with the explicit criteria? Write the progress made in the implementation, the difficulties faced and actions taken to address them.	Decision: What action are we going to take as a result of this cycle (Adopt, Adapt, or Abandon) ? Are we ready to implement? What other processes or systems might be affected by this
	What change will we test? What do we need to try the change?	Who will perform the test? (Name or Role)	When will this be complete?	How will we collect data? (Checklist, Chart audit,)	Who will collect the data? (Name or Role)			
Perform appropriate evaluation and management	Write feedback to emergency OPD assigned physicians	EOPD Director (Dr. Samuel Sh)	until Jan 20, 2017E.C	Audit patient records monthly managed for poisoning	QU (Abdi T+ Abdella A)			
Facilitate Access to Essential Investigations (RFT, LFT, serum electrolytes, coagulation profile, ECG).	<ul style="list-style-type: none"> Procure necessary laboratory investigation. Order/do necessary lab investigation for all poisoning patients. 	<ul style="list-style-type: none"> Hospital leaderships CEO & MD (Nuredin & Dr. Derese) respectively, and Emergency Director (Dr. Samuel Sh) 	Until Mar 20, 2017E.C	Audit patient records monthly managed for poisoning	Quality U(Abdi T+ Abdella A)			

☐ **Adapt** (Modify this change and plan next PDSA cycle; loop back to "Plan")
 ☐ **Abandon** (Change didn't work/won't lead to improvement. Identify new change; plan new PDSA cycle; loop back to "Plan")
☐ **Adopt** (Data revealed this change was effective and worked well; Next step, develop implementation plan) >>>>

Completed by:

Sign off:

Date of review of PDSA:

References

1. **World Health Organization (WHO).** Guidelines for Trauma Quality Improvement Programs. WHO Press, 2009.
2. **American College of Surgeons.** Advanced Trauma Life Support (ATLS) Guidelines. 10th Edition, 2018.
3. **Ministry of Health Ethiopia.** Emergency and Trauma Care Standards. Ministry of Health Publications, 2020.
4. **Royal College of Emergency Medicine.** Standards for Trauma Care in Emergency Departments. RCEM, 2019.