

DEDER GENERAL HOSPITAL EMERGENCY INJURY AND CRITICAL CARE DEPARTMENT



CLINICAL AUDIT TO IMPROVE THE QUALITY OF ROUTINE CARE IN THE INTENSIVE CARE UNIT (ICU)

By:

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☞ HQU TEAM

Dader, Oromia September 2017E.C

Emergency and critical care/ICU case team clinical Audit/QI members

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ABSTRACT

Introduction: Delivery of the best possible patient care is the goal of modern healthcare and is central to every quality improvement project. However, achieving high-quality care in the intensive care unit (ICU) poses significant challenges: The importance of audit as the initial step of a quality improvement program is only just being recognized at a national level. Traditionally, audit focused mainly on measuring performance against set standards before making a change in practice band repeating the whole process or closing the loop. Indeed, such a definition was frequently regurgitated by doctors and

Objective: To improve the quality of routine clinical care provided to patients admitted to critical care unit of Deder general hospital

Method: Retrospective cross-sectional study

Result: A retrospective clinical audit was conducted on ICU care. The Overall Performance of emergency management of ICU care was **68%.** with almost all clients' charts containing appropriate demographic data, diagnosis, treatment, disposition and discharged alive, and identification of the provider like: name and signature of the care providers

BACKGROUND

Delivery of the best possible patient care is the goal of modern healthcare and is central to every quality improvement project. However, achieving high-quality care in the intensive care unit (ICU) poses significant challenges: The importance of audit as the initial step of a quality improvement program is only just being recognized at a national level. Traditionally, audit focused mainly on measuring performance against set standards before making a change in practice band repeating the whole process or closing the loop. Indeed, such a definition was frequently regurgitated by doctors and other allied health care professionals at interview panels up and down the country.

The modern approach to clinical audit places more emphasis on implementing changes and sustaining improvements.4 It is a more sequential, dynamic process with cycles that measure clinical practice with evidence-based benchmarks of best practice, devise strategies for improvement and measure the impact of the changes. Since the beginning of the year 2022, DGH has encountered and still continues to encounter some challenges with case management of emergency poison. Thus, DGH plan this clinical audit aim to improve the quality of clinical care provided for neonates admitted in intensive care unit.

OBJECTIVE

General objective

To improve the quality of routine clinical care provided to patients admitted to critical care unit

Specific objectives

- To ensure optimal nutritional support is provided for patients admitted to the ICU
- To ensure timely and appropriate patient mobilization is provided for patients admitted to the ICU
- To ensure appropriate pain evaluation and management is done for patients admitted to the ICU
- To ensure VAP preventive methods are practiced for patients admitted to the ICU
- To ensure optimal physician care is provided for patients admitted to the ICU
- To ensure optimal nursing monitoring is provided for patients admitted to the ICU

Methods

Study area & period

The clinical audit was conducted in ICU of Deder General Hospital from September 22-24, 2017EC

Study design

Retrospective cross-sectional study

Source population

All patients routine ICU and cards are available during the study period.

Inclusion criteria

Patients who received routine ICU care from June 21, 2016EC to September 20, 2017EC

Exclusion criteria

Patients who were admitted for ≤ 72 hours

Sampling technique

A total of 19 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. Clinical audit is not research. It is about evaluating compliance with standards rather than creating new knowledge, therefore sample sizes for data collection are often a compromise between the statistical validity of the results and pragmatic issues around data collection i.e., time, access to data, costs. The sample should be small enough to allow for speedy data collection but large enough to be representative. In some audits the sample will be time driven and in others it will be numerical.

Study Variables

Dependent variables:

ICU care

Independent Variables

Demographic data, ICU care, ICU unit

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

A retrospective clinical audit was conducted on ICU care. The Overall Performance of emergency management of ICU care was **98%.** with almost all clients' charts containing appropriate demographic data, diagnosis, treatment, disposition and discharged alive, and identification of the provider like: name and signature of the care providers **(Table 1).**

Table 1: ACTUAL PERFORMANCE ANDV PERFORMANCE AGAINST TARGET

	Variables	Target	Actual Performance	Performance against target
1	Identification information is recorded for a patient admitted to the ICU	100	100	0
2	Optimal nutritional support is provided for a patient admitted to the ICU	100	51	0
3	Appropriate and timely patient mobilization is done for a patient admitted to the ICU	100	75	0
4	Appropriate pain and agitation evaluation and management is provided for a patient admitted to the ICU	100	62	10
5	Appropriate ventilator associated pneumonia (VAP) prevention methods are applied for patient admitted to ICU	100	40	0
6	Optimal physician care is provided for a patient ad - mitted to the ICU	100	100	0
7	Optimal nursing monitoring is provided for a patient admitted to the ICU	100	66	6
8	Identification of care provider is documented for a patient admitted to the ICU	100	100	0
9	Patient died while being managed in the ICU	35	21	0
	Total Percentage (%)	100	615/9=68%	

Overall Performance of ICU CARE

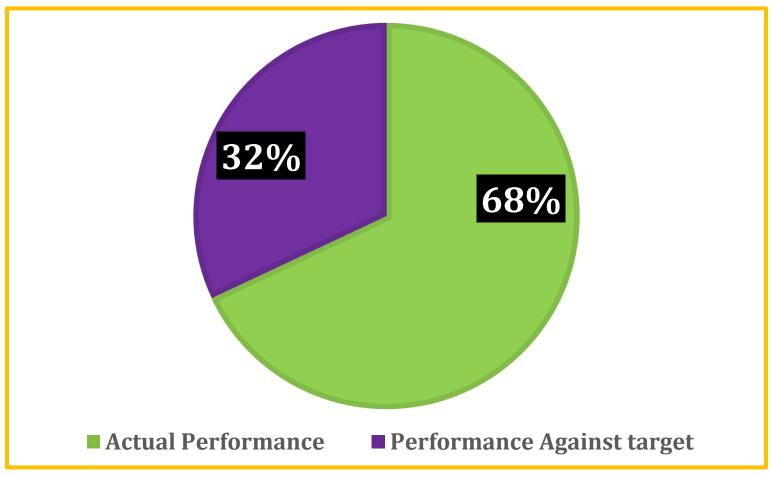


Figure 1: Overall Performance of Performance of ICU CARE, September 2017E.C

Graph showing score for each criterion/standard for Performance of ICU care

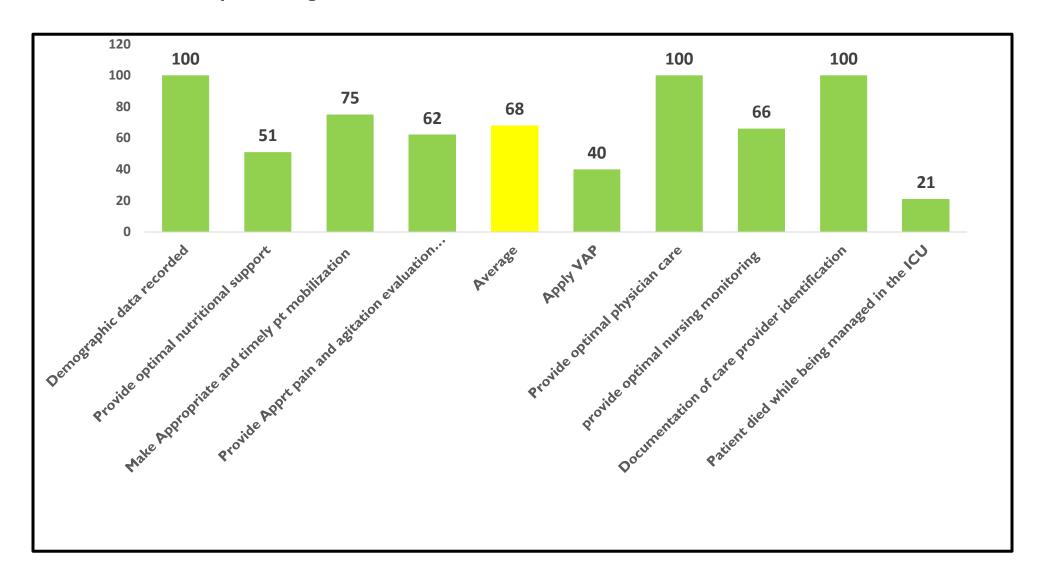


Figure 2: score for each criterion/standard for ICU care, September 2017E.C

Table 2: List of prioritized Problems to be addressed

S.No	Problems List	Rank	Remark
1	Optimal nutritional support is not provided for a patient admitted to the ICU	1.	
2.	Appropriate and timely patient mobilization is not done for a patient admitted to the ICU	2.	
3.	Appropriate pain and agitation evaluation and management is not provided for a patient admitted to the ICU	4	
4.	Optimal nursing monitoring is not provided for a patient admitted to the ICU	3.	

Table 3: Root Cause Analysis

S	List of problems	Specific sub criteria	Root cause of the Problem		
1	Optimal nutritional support is not provided	No energy and protein content food	Knowledge gap on food preparation		
	for a patient admitted to the ICU	No nutritional assessment conducted	Knowledge gap on the assessment tool		
		NG Tube care is not given	Skip gap on NG Tube care		
2	Appropriate and timely patient mobilization is not done for a patient admitted to the ICU	Limb physiotherapy is not done	No physiotherapist		
	Optimal nursing monitoring is not provided for a patient admitted to the ICU	All patient's fluid intake is not is calculated at the end of each shift	Negligence		
		All patient's fluid output is not is calculated at the end of each shift	Negligence		

Table 4: Action plan

Summary of problem	Root cause	Change ideas	Responsible body	Time frame
No energy and protein content food	Knowledge gap on food preparation	Provide on job training	Emergency & critical care Director, MD, & QI unit	
No nutritional assessment conducted	Knowledge gap on the assessment tool	Provide on job training	Emergency & critical care Director, MD, & QI unit	
NG Tube care is not given	Skip gap on NG Tube care	Provide on job training	Emergency & critical care Director, MD, & QI unit	
Limb physiotherapy is not done	No physiotherapist	Give feedback	ICU head	
All patient's fluid intake is not is calculated at the end of each shift	Negligence		ICU head	
All patient's fluid output is not is calculated at the end of each shift	Negligence		ICU head	

REFERENCES

- Core standards for intensive care units. 1st ed. http:// www.ficm.ac.uk/sites/default/files/Core%20Standards
 %20for%20ICUs%20Ed.1%20%282013%29.pdf (2013, accessed 18 August 2014).
- 2. Rhodes A, Moreno R, Azoulay E, et al. Prospectively defined indicators to improve the safety and quality of care for critically ill patients: a report from the task force on safety and Quality of the European Society of Intensive Care Medicine (ESICM). Intensive Care Med 2012; 38: 598–605.
- 3. National Institute of Health and Care Excellence, https://www.nice.org.uk/ (accessed 25 September 2014).
- 4. Healthcare Quality Improvement Partnership, http://www.hqip.org.uk/ (accessed 25 September 2014).
- 5. Royal College of Anaesthetists. Raising the standard: a compendium of audit recipes for continuous quality improvement projects in anaesthesia. 3rd ed, http://www.rcoa.ac.uk/system/files/CSQ-ARB-2012_1.pdf(accessed 25 September 2014).
- 6. Wong A. Audit recipe book survey. Crit Eye 2014; 5: 16.
- 7. A 'how-to' guide to setting up a trainee-led research network, http://www.niaa.org.uk/article.php?newsid¼ 925 (accessed 1 August 2014).
- 8. Pronovost P, Needham D, Berenholtz S, et al. An intervention to decrease catheter-related bloodstream infections in the ICU. NEJM 2006; 355: 2725–2732.
- Matching Michigan. Reducing CVC bloodstream infections, http://www.patientsafetyfirst.nhs.uk/Content
 http://www.patientsafetyfirst.nhs.uk/Content
 http://aspx?path1/4/interventions/matchingmichigan/
 http://aspx?path1/4/interventions/matchingmichigan/
 http://aspx?path1/4/interventions/matchingmichigan/
 http://aspx?path1/4/interventions/matchingmichigan/
 http://aspx?path1/4/interventions/matchingmichigan/
 http://aspx.path1/4/interventions/matchingmichigan/
 <a href="aspx?path1/4/
- 10. South coast perioperative audit and research collaboration, http://wessex-sparc.com/ (accessed 20 July 14).