

The creation and implementation of a Neck of Femur clerking checklist on an electronic recording system

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Introduction:

As medicine adjusts to the advances in technology, one aspect is the transfer from paper notes to an electronic system. Electronic notes allow physicians to document their clerking as they would write it on a blank piece of paper, often nullifying the benefits of previously commonly used paper proformas. The aim of this audit was to evaluate and optimise the standard of electronic admission clerkings of neck of femur (NOF) fracture patients against the current NICE guidelines.¹

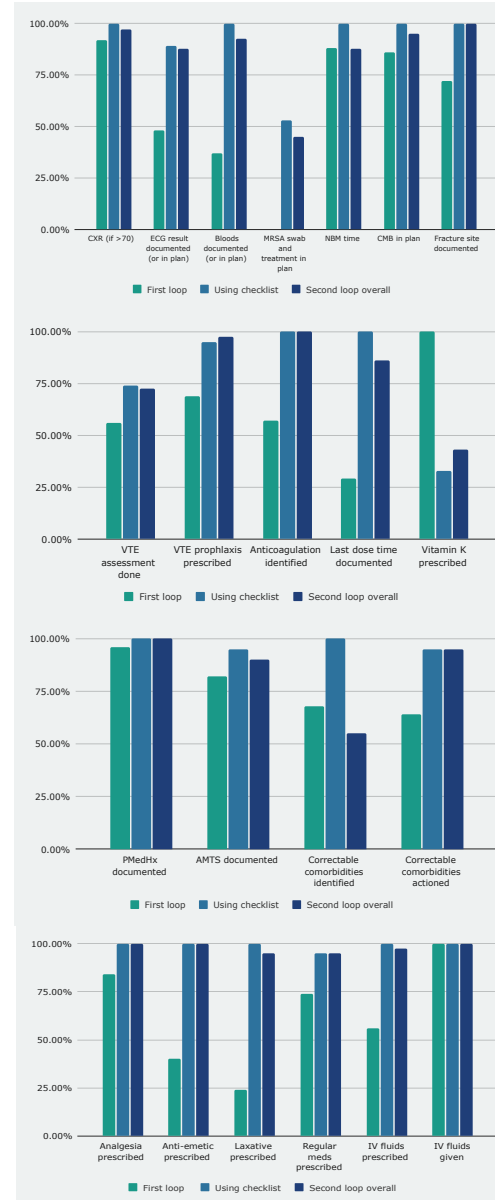
Methods:

- A closed loop audit was performed, focusing on the percentage completion of pre-operative tasks in NOF clerkings between November 2019-January 2020 (n=56) and August 2020-January 2021 (n=40).
- 27 pre-operative tasks were evaluated, aiming for 100% completion in each.
- After the first loop we implemented a NOF clerking checklist that can be recorded on the electronic system with the aim of increasing completion of pre-operative tasks and ultimately streamlining pre-operative care.

Orthopaedic Surgery Checklist Fracture Neck of Femur Pathway		Bradford Teaching Hospitals NHS
Checklist Items	Doctor	
VTE assessment & Prescription		
Analgesia, Antiemetic, Laxative Prescribed		
IV Fluid Prescribed		
PMH documented		
AMTS Documented		
NBM from: (Date + Time)		
Consent, Marked, Banded		
CXR		
ECG		
Blood Results:	Hb: Platelets WCC: INR: eGFR: Urea, Creatinine: Na, K:	
G+S (X2)		
Drug History, Medicines Reconciled		
Anticoagulation: Drug, Dose, Time last taken		
Doctors Name:	Bleep: #465	

Table 1: Neck of Femur Fracture Surgical Checklist ²

Results:



Discussion:

This audit has shown improvement in the completion of perioperative tasks for NOF fracture patients after the implementation of the checklist, 21 aspects achieved >70%. Notably, we demonstrated the checklist increased the correctable abnormalities identified and acted upon, as failure to correct reversible abnormalities leads to increased mortality.³ Secondly, we have shown an improvement of IV fluid therapy prescription and administration. IV Fluid therapy is a key aspect of best anaesthetic care in NOF fracture patients and reduces the risk of AKI.^{4,5} We hypothesise this improvement in completion of tasks improves perioperative care and reduces morbidity and mortality. However, no evaluation or analysis into actual morbidity or mortality was performed, as patient outcomes were not formally assessed.

Furthermore, only 47.5% completed and documented the checklist in the notes. This could be explained by physicians becoming accustomed to using the checklist initially and incorporating the elements into their clerking, more senior physicians being less likely to use the checklist, and locums being unfamiliar with the process. However, when the checklist was used a higher proportion of items were completed when compared to when not. In addition, the data analysis was subjective: when analysing the documentation of the clerking physician, not every thought process & decision of the physician is documented in their clerking and the data was collected retrospectively. Further analysis is warranted using prospective data to evaluate the improvement of outcomes of patient after the implementation of the checklist.

Conclusion:

The NOF checklist allows a physician to tick the tasks completed once they have clerked the patient, highlighting tasks that have not been completed and ensures they are acted upon. The checklist is visible to all healthcare staff, providing consistency, continuity and allowing reflection and review. We have shown a simple checklist improves the recording and performance of preoperative tasks by physicians. We hypothesise this checklist will help reduce morbidity, mortality, reduce error risk, and improve patient optimisation preoperatively.

References:

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