Assessment and management of orthopaedic patient
14HDC00134, 28 June 2017

Public hospital ~ District health board ~ Orthopaedic registrar ~ House officer ~ Anaesthetist ~ Orthopaedic surgeon ~ Medical registrar ~ Orthopaedic surgery ~ Clinical history ~ NSAIDs ~ Handover ~ Deterioration ~ Rights 4(1), 4(5)

A 75-year-old man was referred to a public hospital for knee surgery. The man had previously had a hip dislocation following which he suffered a large gastrointestinal (GI) bleed secondary to the use of non-steroidal anti-inflammatory drugs (NSAIDs).

The following year, the man attended an outpatient appointment with an orthopaedic registrar, and completed a patient questionnaire. He attended a pre-admission clinic, where he was assessed by a house officer and a consultant anaesthetist. Neither the orthopaedic registrar, house officer, nor the anaesthetist reviewed the previous clinical records or documented the past history of the GI bleed.

The man underwent total knee joint replacement surgery at the hospital, undertaken by the orthopaedic surgeon, who had previous knowledge of the man and his history. A surgery checklist and a surgical time-out protocol was completed but neither recorded the GI history. The anaesthetist on the day of surgery (who was not the anaesthetist at the pre-admission clinic) was not made aware of the history of a GI bleed. Postoperatively, with the surgeon's knowledge, the man was charted pain relief that included ibuprofen, an NSAID.

The orthopaedic surgeon reviewed the man and expected him to be discharged home in four or five days' time. The orthopaedic surgeon went on leave, but the handover that took place was not documented. No other orthopaedic staff member was specified in the record as being the responsible clinician for the leave period.

The man then showed signs of deterioration. An on-call house officer reviewed the man and queried a peptic ulcer. The house officer stopped the ibuprofen and diagnosed renal impairment. Another house officer reviewed the man and telephoned the on-call medical registrar. The medical registrar considered that the man required further fluid resuscitation and reassessment prior to any escalation of care.

The medical registrar was the first doctor in a role above house officer to review the man. No examination findings were recorded. The medical registrar concluded that the man had sepsis secondary to pneumonia and acute kidney injury. The medical registrar did not seek advice from a more senior clinician. No follow-up plans, further investigation, or recommendations to the orthopaedic team were documented.

A second medical registrar performed an examination and concluded that the man was acutely unwell with chest sepsis and renal injury. He anticipated that the man might need higher care intervention and planned further review. The man deteriorated, and the second medical registrar escalated the man's case and contacted a consultant. A transfer to ICU was agreed. The man had a cardiac arrest and CPR was performed. He was intubated and invasive monitoring commenced.

However, owing to multi-organ failure, a decision was made to discontinue resuscitation. Sadly, the man died.

Findings summary

There was criticism of the orthopaedic registrar, the anaesthetist at the preadmission clinic, and the house officer at the preadmission clinic for not reviewing the man's clinical records and recording the relevant clinic history in the contemporaneous record.

The orthopaedic surgeon, the responsible consultant surgeon, acknowledged that he was familiar with the man's clinical history and that he proceeded cognisant of that. However, he did not enter the man's GI history into the contemporaneous record. The man was later prescribed NSAID medication with the orthopaedic surgeon's oversight, without the relevant past clinical history having been documented. The man's handover was not documented. The orthopaedic surgeon, overall, failed to ensure quality and continuity of services and, therefore, breached Right 4(5).

The first medical registrar did not provide appropriate advice or perform an adequate initial assessment of the man in a timely manner, and failed to seek advice from a senior colleague when the man's condition warranted it. He did not provide services with reasonable care and skill and, therefore, breached Right 4(1).

The second medical registrar conducted a thorough initial review of the man. He documented the review and included review of the patient history. He later made contact with a consultant, and facilitated the man's transfer to ICU. However, he was criticised for not making contact with a senior colleague earlier.

The man's case highlighted the following DHB systems issues, which contributed to his suboptimal care:

- The DHB records system did not assist staff to facilitate effective review of patient history and significant patient comorbidities.
- The wording and nature of several of the questions on the DHB pre-assessment patient questionnaire may have been subject to misinterpretation.
- Postoperatively:

    a) There was a lack of clarity about the person to whom oversight of the man's care had passed, particularly once the orthopaedic surgeon went on leave.
    b) Many staff in this case did not adhere to Early Warning Score (EWS) protocols appropriately.
    c) Escalation to more senior staff did not occur appropriately when the man deteriorated.

The DHB did not provide services to the man with reasonable care and skill and, accordingly, breached Right 4(1).

Recommendations

A series of detailed recommendations were made, including that the DHB clarify roles and responsibilities of staff and outline precisely when in the patient surgical

pathway, and by whom, the patient's clinical history and records are reviewed and communicated. It was also recommend that the DHB detail mechanisms being pursued for ensuring an appropriate medical response to an Early Warning Score trigger, and for ensuring that its junior doctors are confident and supported to escalate concerns about deteriorating patients to their senior colleagues.

It was recommended that the orthopaedic surgeon provide details to HDC on steps taken to formalise handover of his surgical inpatients to orthopaedic colleagues in the event of taking leave, to include a process of clear instructions for patient oversight.

It was recommended that the first medical registrar provide evidence of undertaking further education in the application of EWS scores, the recognition of a deteriorating patient, and the escalation of care to senior colleagues in the event of patient deterioration.

It was recommended that the DHB, the orthopaedic surgeon, and the medical registrar all provide a formal written apology to the man's family.