Is there a role for emergency Nighthawk radiology reporting service in a district general hospital?

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Introduction & Aim: Tertiary trauma centres have radiology reporting services provided by in house radiologists overnight. Some district general hospitals have the use of a remote reporting services provided by Nighthawk for out of hour emergency scans. The practice, however, is to delay overnight scans until the hospital radiologists are available during office hours, with Nighthawk being perceived as providing reports that are less accurate as well as involving higher costs. The volume of patients who are critically ill and need surgical intervention overnight is ever increasing across the board in the NHS. However, the evidence supporting the role of Nighthawk reporting out of hours in a district general hospital remains low and use of Nighthawk services especially overnight is discouraged. We hypothesize that Nighthawk reporting services have a role in the emergency setting in a district general hospital in providing safe care to patients.

Method: A retrospective review of OOH CT scans done by Nighthawk at a single institution was carried out over a 12-month period. Data was collated from Radiology Department, ICE and TrakCare reporting systems.

Results: A total of 900 CT scans were requested out of hours in a period of 12 months; 129 CT scans of abdomen/pelvis, 9 CT angiograms, 450 CT heads and 312 CT trauma protocol. 24 CT abdomen/pelvis scans were normal, 140 were pathological. The pathological CT scans reported 33 viscus perforations, 15 intra-abdominal collections, 15 bowel obstructions, 9 ischemic bowel, 6 complicated pancreatitis, 6 renal obstructions, 6 femoral pseudoanuerysms, 6 appendicitis, 6 severe cholecystitis and 3 traumatic splenic lacerations. 57 of 129 CT abdomen/pelvis scans confirmed the clinical diagnosis, 72 reported alternate diagnosis. 30 patients with pathological CT scans were operated overnight, 9 were transferred to tertiary centre for definitive management. Median time delay between presentation to CT request being made was 180 minutes. Median time delay between CT request and CT done was 60 minutes. Median time delay between completion of CT scan and report available was 45 minutes.

Conclusion: Nighthawk is shown to improve patient outcomes and has a clear role in the emergency setting in reducing delay in diagnosis and treatment.

Biography
Mazuin Abu Talib is a UK surgical trainee with an interest in colorectal surgery and cancer resections. She graduated from Newcastle University in 2010 while on a government scholarship from Malaysia. She holds MRCS and a Masters in Clinical Education. Mazuin is a keen runner and fundraiser for various charities including Christie’s, MuslimHands, Graham Wylie Foundation, and RMBF.