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Assistant Coroner for Cambridgeshire and Peterborough

Regulation 28 Report to Prevent Future Deaths: C Reed 21.09.2023

Further to your prevention of Future Deaths Notice following the conclusion of your inquest (06.09.2023) into the death of Chantelle Reed who died on 29th October 2020, we would like to extend our sympathy and condolences to the family and friends of Ms Reed.

You have asked us to address two specific areas of concern, the first of which was the nature of the chest pain which was described as radiating to the neck and jaw and whether this should have raised the possibility of Thoracic Aortic Dissection (TAD). Unfortunately chest pain which radiates to the neck or jaw is not specific for TAD and this description is much more likely to be in keeping with other pathology such as acute coronary syndrome (heart attacks and angina); in fact acute coronary syndrome is 100-200 times more common than TAD [1]. The most discriminating description of the chest pain that is experienced in TAD that is evidence based is described *as sudden onset with its worst severity being at its onset* [2,3]. As noted in your report, TAD in a woman of Ms Reed's age is highly unusual and we would consider this a rare occurrence in the absence of any other risk factors.

We neither feel that there is sufficient evidence to support the suggestion that chest pain radiating to the neck or jaw should mandate the investigation for TAD (Computed Tomography of the Aorta) nor that there is sufficient evidence to suggest that the balance of risk and benefit is in favour of performing Computed Tomography of the Aorta (CTA) in all such cases. The risks associated with performing CTA for all patients presenting chest pain radiating to the neck or jaw will include a high rate of negative scans and consequent unnecessary exposure to the risks of ionising radiation (eg. cancer) as well as a significant radiological workload that is likely to negatively impact on patients who do have significant injury or illness. Unfortunately there is currently no combination of presenting features or blood tests or radiographic changes on a chest X-ray that are able to exclude the diagnosis of TAD with certainty, this can only be done by CTA.

The second area of concern that you asked us to address related to the timescale for a radiologist to review a chest x-ray and provide a report on relevant findings. The Royal College of Radiologists (RCR), together with the Society and College of Radiographers, contributed to and support guidance published in August 2023 by NHS England on diagnostic imaging turnaround times [4]. Turnaround time (TAT) is the interval between an imaging examination and a verified report being made available to the referring clinician, and keeping TATs as short as possible is essential for timely diagnosis and treatment of patients. The guidance recognises the current workforce crisis in diagnostic imaging: achieving or exceeding the recommended TATs is based on there being full staffing in place to deliver them. For context, the RCR's most recent workforce census [5] highlighted a current 29% shortfall of clinical radiologists, which inevitably has an impact on the quality of care that consultants are able to provide. The recommended maximum TAT for urgent inpatient referrals is 12 hours, or less than 4 hours post-acquisition of images for Emergency Department or acutely unwell inpatients.

Departments are encouraged to explore alternative solutions, including outsourcing agreements with third-party teleradiology providers and cross-network collaboration to address efficiency gaps.

The rapid diagnosing of TAD continues to be of great concern to both organisations and we have worked with aortic dissection charities to highlight to frontline clinical staff the available guidance and the need to consider the diagnosis of TAD in patients who present to the emergency department with chest pain. The clinical features of TAD are diverse, making diagnosis difficult and currently there is no validated clinical decision rule to aid clinicians. Both our organisations are committed to continuing to work together to promote evidence based best practice in the diagnosis of TAD.

Yours,



The Royal College of Radiologists
Medical Director Professional Practice,
Clinical Radiology



Royal College of Emergency Medicine
Chair, Quality Emergency Care
Committee

References

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2. 2022 ACC/AHA Guideline for the Diagnosis and Management of Aortic Disease: A Report of the American Heart Association/American College of Cardiology Joint Committee on Clinical Practice Guidelines. Isselbacher EM et al. Circulation. 2022; 146 (24): e334–e482. <https://www.ahajournals.org/doi/epub/10.1161/CIR.0000000000001106>. Accessed 18.10.2023.
3. European Society Cardiology Guidelines on the diagnosis and treatment of aortic diseases. European Heart Journal 2014, 35; 2873-2926
4. Diagnostic imaging reporting turnaround times. NHS England, 2023. <https://www.england.nhs.uk/long-read/diagnostic-imaging-reporting-turnaround-times/>. Accessed 19.10.2023.
5. RCR Clinical Radiology Workforce Census 2022. The Royal College of Radiologists, 2023. <https://www.rcr.ac.uk/clinical-radiology/rcr-clinical-radiology-workforce-census-2022>. Accessed 19.10.2023.

Please direct any further queries regarding this joint RCR/RCEM response via  in the first instance.