



3rd Annual Quality & Patient Safety Conference

Improving the Healthcare Journey for Patients & Staff



TITLE

Pilot pathway for improved identification of aortic dissection(AD) at Tallaght University Hospital (TUH) Emergency Department (ED)

SUBMITTED BY

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ABSTRACT

INTRODUCTION

AD is an uncommon cardiovascular emergency that can be difficult to diagnose. Missed diagnosis has catastrophic consequences. High index of suspicion, prompt diagnosis and management are imperative to optimise patient outcomes. The mortality rate for acute AD increases by 1% per hour in the first 48hours from onset of symptoms. If recognised, AD can be treated with survival to discharge quoted at 85-90%. Atypical presentations/lack of awareness contribute to missed diagnosis. In our institution, following a missed aortic dissection, we implemented a QIP to raise awareness, improve triage ('think' aorta/include 'aortic type pain') and trigger diagnostic imaging earlier and more frequently.

METHODOLOGY

PDSA model as per HSE QI toolkit with completed audit cycle.

AIM

To improve identification of aortic dissection/prevent misdiagnosis in patients presenting to TUH ED by increasing awareness and increasing the volume of diagnostic scans requested and performed within 12 months.

CHANGE IMPLEMENTED

Pilot pathway for increased definitive imaging (approximately 8 diagnostic CT scans requested per month) with collaboration between the ED and Radiology. Recognition that there will be more negative scans performed. Raised awareness for new pathway with multidisciplinary simulation based medical education.

MEASUREMENT

Audit of diagnostic scans performed, aortic dissection detection rate and missed rate. Review of data and the pathway at 3, 6 and 12 months. Comparison to baseline data.

RESULTS

- Total number of scans performed within the audit time frame (December 2020 - January 2022): 170
- Total number of scans for AD requested by ED: 149
- Number of months where quota of 12 scans met: 6
- Number of months where 2/3rd of quota met: 3
- Total number of scans positive for aortic dissection: 7
- Type of AD: A (3) B (4)
- Survival to discharge: (5)
- Total number of missed cases of aortic dissection: 0
- Other diagnoses found: Ruptured AAA (2), TA ulceration (1)
- Number of educational programs: (2)

VALUE

4 de novo cases of AD were detected as a direct result of this dedicated multidisciplinary program. 3 other emergent/urgent conditions were also diagnosed due to the increase in imaging studies being performed. Most importantly there were no cases of missed aortic dissection following the implementation of the pathway.

SUSTAINMENT

This pathway is now embedded in practice. The culture of 'thinking aorta' and performing diagnostic imaging has changed and this has had a sustained impact on improving patient safety and reducing risk. We would recommend that other EDs adopt this pathway.

ADDITIONAL INFORMATION

This initiative could be replicated in any Emergency Department that does not have a pathway for the recognition & diagnosis of AD.