

Rise in Infective Endocarditis cases over the COVID-19 Pandemic

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Introduction

COVID-19 has been an unprecedented burden on healthcare service, particularly in the UK, ranking 5th in total cases and 7th in total death globally¹. During this period we are only just starting to return to some form of normalcy in terms of healthcare services. Infective endocarditis (IE) is a rare condition with both high mortality and morbidities and at a district general hospital we noted an alarming rise in IE cases in the thus far 2 year COVID-19 period in comparison to the previous 5 years.

Plan; Improve awareness and subsequently management of IE cases

QIP Cycle 1 May 2021

Do; Raise awareness to Microbiology of this preliminary data

Study; Notable rise in cases with bacteraemias of interest

Act; Formally collate the data for presentation to Microbiology department

QIP Cycle 2 June 2021

Do; Highlight bacteraemias of interest to senior Microbiologists and formally track IE/Potential IE patients

Study; Awareness and total number of cases being tracked rose

Act; Formally create a IE caseload and track new/current cases

QIP Cycle 3 July 2021

Do; Alongside monitoring of cases on Excel, create active patient list for daily updating

Study; Formal cases rose but newly picked fell

Act; Continue active patient tracking, create presentation for Cardiology

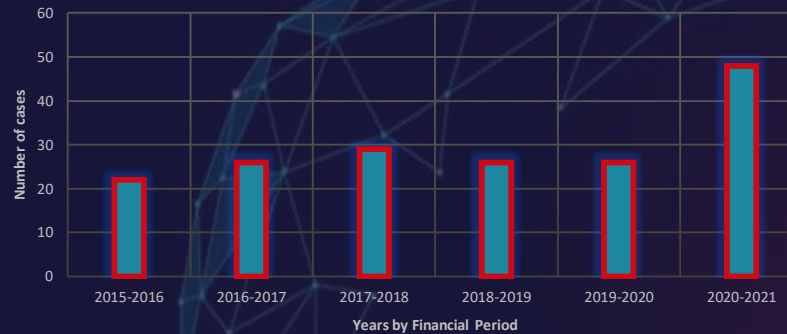
QIP Cycle 4 August 2021

Do; Handover data, dynamic patient list and Excel sheet to incoming SHOs

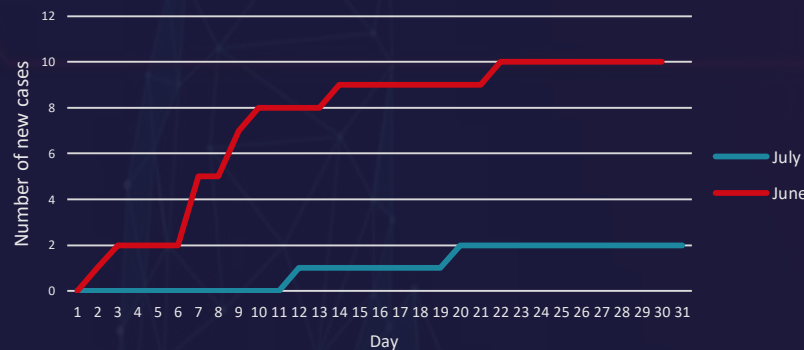
Study; Picked up cases fell Preliminary IE team proposed for future improvement

Act; Establish a MDT involving Microbiology, Cardiology and Cardiothoracic surgeon as per ESC²

IE Cases from 2015-2021



Comparison of new potential IE cases in June vs July 2021



Results & Conclusion

This QIP was done as part of an overarching audit that identified the rise in IE over the COVID-19 period. We found from a Microbiology point of view although initial management was directed well our own follow up with such cases fell behind. Because of this and other issues that come with rotas and handovers (e.g. the change in acute medical staffing patients) patients were found to be missing follow up investigations, appropriate discharge antibiotics and so on.

This QIP generated a dynamic virtual list that could be accessed by all staff and allow daily communication between Microbiology and general/acute medicine on the progress and response of patients with suspected IE. Once this was established fewer cases were 'picked up' ad hoc and were instead managed as IE from the start, allowing for more accurate therapy and decisions such as surgical intervention considered earlier.

This QIP alongside the audit was presented to Cardiology who were keen to be involved in a trial of the 'Endocarditis Team' as suggested by the ESC Guidelines 2015² that suggested this intervention could improve mortality by over 10%.

References

1. World Health Organisation. (2021, July). *WHO Coronavirus (COVID-19) Dashboard*. Retrieved from WHO Coronavirus (COVID-19) Dashboard: <https://covid19.who.int/>
2. ESC Scientific Document Group. (2015, November 21). 2015 ESC Guidelines for the management of infective endocarditis: The Task Force for the Management of Infective Endocarditis of the European Society of Cardiology (ESC). *European Heart Journal*, 36(44), 3075-3128. doi:10.1093/eurheartj/ehv319