How did the COVID-19 pandemic impact antibiotic prescribing and antimicrobial stewardship in acute care settings?

Authors: Rasha Abdelsalam Elshenawy, Nkiruka Umaru, Zoe Aslanpour

Affiliations:

Publication Type: Research Problem

Publication Date: 19th May 2023

Language: EN

License Type: CC BY 4.0

DOI: 10.57874/372b-6747

How did the COVID-19 pandemic impact antibiotic prescribing and antimicrobial stewardship in acute care settings?

This Problem is based on work published in http://doi: 10.1186/s12889-023-15072-5 [1]

Introduction:

The rise of multi-drug-resistant infections poses a grave threat to global health, resulting in substantial morbidity, mortality, and economic repercussions. In 2016, the O'Neill review warned of a silent pandemic, projecting 10 million annual deaths from antimicrobial resistance (AMR) by 2050 if left unaddressed. It is projected that AMR could cause one death every three seconds. This alarming estimate highlights the urgent need for concerted action, innovation, and collaboration in order to avert a catastrophic impact on public health [2]. Recognising the severity of this challenge, the World Health Organization (WHO) has ranked AMR among the top ten global public health threats, urging prompt action to prevent dire outcomes [3]. As of 2019, over 1.2 million people worldwide succumbed to AMR-related deaths [4]. Antimicrobial

stewardship is a crucial aspect of healthcare, and the Start Smart-then Focus approach is a recommended protocol for all antibiotic prescriptions. The Public Health England (PHE) toolkit provides evidence-based guidance on antimicrobial stewardship in secondary healthcare settings [5].

Objectives:

This study has three main objectives. The first is to determine the extent of inappropriate antibiotics before and during the COVID-19 pandemic. The second objective is to assess the implementation of Antimicrobial Stewardship (AMS) in 2019 and 2020. The final objective is to evaluate the factors affecting antibiotic prescribing and AMS implementation before and during the COVID-19 pandemic.

Method:

A retrospective cross-sectional study was undertaken to evaluate antibiotic prescribing among adult patients aged 25 and above admitted to an English NHS Trust. Data were collected from the electronic medical records of these patients, adhering to the study's inclusion and exclusion criteria. In order to extract data from the medical records of patients diagnosed with Respiratory Tract Infections (RTIs) both prior to and during the COVID-19 pandemic, a data extraction tool was prepared to ensure comprehensive data collection.

Research problem:

How did the COVID-19 pandemic impact antibiotic prescribing and antimicrobial stewardship in acute care settings?

Registration:

The protocol of this study was published in the ISRCTN related to the WHO Criteria [6].

References

No references have been specified for this publication.

Parent publications

The emergence of multidrug resistance (MDR resistance to 2 more antimicrobials) in Escherichia coli is of concern due to complications encountered in treatment.

Antibiotic resistance is a topic of global concern these days.

antibiotic resistant

Antibiotics are frequently prescribed for sore throat in developing countries, that in turn leads to huge healthcare expenditure and their irrational use may lead to antimicrobial resistance in the community.

Funders

No sources of funding have been specified for this publication.

Conflict of interest

This publication does not have any specified conflicts of interest.