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Healthcare workers' views on antibiotic prescribing and stewardship during the COVID-19 pandemic at an NHS Foundation Trust in England: a cross-sectional survey

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Introduction

- Antimicrobial resistance (AMR) is a rapidly escalating global health challenge, projected to cause 10 million deaths annually by 2050 (1).
- In response, the UK Government developed a five-year national action plan, 'Confronting Antimicrobial Resistance 2024 to 2029,' aimed at optimising antimicrobial use and implementing antimicrobial stewardship (2). The COVID-19 pandemic has significantly impacted the healthcare system, jeopardised public health and caused millions of deaths worldwide. The pandemic has exacerbated AMR due to increased antimicrobial therapy and misuse (3).

Aim

- This study explores healthcare workers' (HCWs) views on antibiotic prescribing, antimicrobial stewardship, and resistance in a UK secondary care setting during the pandemic.

Methods

- This cross-sectional study employed an online questionnaire survey conducted at an NHS Foundation Trust in the East of England, targeting doctors, nurses, and pharmacists. The total eligible participants comprised 5,636 doctors, 2,140 nurses, and 206 pharmacists.
- Data collection was carried out using Qualtrics XM from 12 June to 13 September 2023. Inclusion criteria required healthcare workers (HCWs) to be adults aged 25 or older, registered with relevant professional bodies, and employed during the pandemic. Data analysis involved both descriptive statistics and qualitative methods to interpret participants' open-ended responses to the question, "What lessons have been learnt during the COVID-19 pandemic?"
- This study was registered under ISRCTN number 14825813 and received ethical approval from the University of Hertfordshire Ethics and Health Research Authority (HRA) (REC reference number 22/EM/0161).
- The public and patient involvement included submitting the study protocol to the Citizens Senate, which provided valuable feedback and suggestions.

Results

- A total of 23 HCWs completed the survey, including 12 pharmacists, nine doctors, and two nurses. It included an open-text section where respondents shared lessons learned during the COVID-19 pandemic.

Pharmacists' Insights (Concerns)

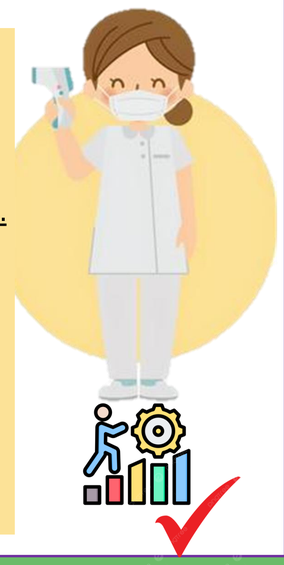
- 75% (9 out of 12) identified inappropriate antibiotic use without clinical justification as a significant issue.
- 67% (8 out of 12) reported an increase in healthcare-associated infections (HCAIs).
- 83% (10 out of 12) noted the positive impact of technology platforms and antibiotic reviews on implementing effective and sustainable AMS.

Doctors' Insights (Awareness)

- 89% (8 out of 9) emphasised the need for reliable information dissemination, observing that social media often overshadowed evidence-based guidelines.
- 78% (7 out of 9) stressed the importance of staying informed about resistance patterns and antibiotic prescribing trends.

Nurses' Insights (Challenges)

- All nurses highlighted the significance of AMR awareness.
- Additionally, they reported that mental fatigue affected decision-making during the pandemic.



Discussion and Conclusion

- This study highlights the essential role of technology platforms in enhancing antimicrobial stewardship practices and the necessity of disseminating reliable information to counter misinformation. The pandemic highlighted the need for clear guidelines and robust communication strategies to support clinical practices.
- However, this study has limitations, including a small sample size of 23 participants, which may affect the generalisability of the findings. Future research should include larger, more diverse samples to validate these findings and assess specific AMS interventions.
- The study also revealed the importance of resilient AMS implementation to optimise antibiotic use and improve patient outcomes. Achieving this requires ongoing AMS education, interdisciplinary collaboration, and adaptive strategies to effectively mitigate antimicrobial resistance.

References

1. Elshenawy RA, Umaru N, Alharbi AB, Aslanpour Z. Antimicrobial stewardship implementation before and during the COVID-19 pandemic in the acute care settings: a systematic review. BMC Public Health. 2023 Feb 10;23(1):309. DOI: 10.1186/s12889-023-15072-5. PMID: 36765323; PMCID: PMC9918338.
2. UK Government. Confronting Antimicrobial Resistance 2024 to 2029. Available from: https://www.gov.uk/government/publications/uk-5-year-action-plan-for-antimicrobial-resistance-2024-to-2029.
3. Khan S, Bond SE, Bakhit M, Hasan SS, Sadeq AA, Conway BR, Aldeyab MA. COVID-19 Mixed Impact on Hospital Antimicrobial Stewardship Activities: A Qualitative Study in UK-Based Hospitals. Antibiotics (Basel). 2022 Nov 11;11(11):1600. DOI: 10.3390/antibiotics11111600. PMID: 36421244; PMCID: PMC9686587.