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RISK COMMUNICATION FOR CROSS BORDER HEALTH THREATS: INFECTIOUS DISEASES AND ANTI-MICROBIAL RESISTANCE

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Summary: The threat posed by anti-microbial resistant pathogens, especially in the context of health care associated infections, has taken on an increasingly pan-European dimension thanks to greater population mobility and provision of cross-border health care. Risk communication involves informing patients, health care workers and the wider public about health risks and helps to encourage risk-compensating behaviours. This article examines risk communication with regards to Methicillin-resistant Staphylococcus aureus (MRSA) in a number of different European countries, and discusses how lessons from the past can be used to improve future approaches to communicating risk.

Keywords: *MRSA, Anti-Microbial Resistance, Risk Communication, Health Care Associated Infections*

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Introduction

Anti-microbial resistance (AMR) and health care associated infections (HCAIs) are high on the health policy agendas across Europe. The European Centre for Disease Prevention and Control (ECDC) has placed the "Antimicrobial Resistance and Healthcare-associated Infections Programme" among its top priorities for the future,[1] while the Chief Medical Officer in England recently described the threat posed by AMR as "catastrophic" and on a par with international terrorism.[2] The recently adopted European Directive on the application of patients' rights in cross-border health care facilitates

European citizens' access to health care in Member States other than their own. However, with these opportunities come increased risks of cross-border health threats such as AMR.

Risk communication encompasses all measures that contribute to perceptions of the risk associated with certain practices. It is an important component of infection control measures, as accurate assessment of risk can have a large impact on appropriate risk-compensating behaviours (e.g. frequent hand washing).[3] Recent research has highlighted a number of areas which are key to understanding effective risk communication, such as the nature and quality of information provided,[4] patients' and the general public's perceived information needs[5] and the role of the media.[6]

Study framework and findings

A framework of key elements of MRSA infection control policy was developed and applied to five European Union (EU) countries (Austria, Germany, Netherlands, Spain, United Kingdom) in order to find out how chosen approaches differed between and within countries. Our assumption was that infection control practices are implicit messages that can either reinforce or refute explicit risk communication measures and consequently can impact on the public perception of the risk posed by MRSA.

Strategies aimed at limiting the impact of MRSA were found to vary significantly between the countries. Only The Netherlands has a proactive "search and destroy" strategy involving screening of all patients and staff for carriage as well as symptomatic infection with MRSA. In hospitals, all patients are subject to a risk assessment, with those deemed at high-risk placed in pre-cautionary isolation until testing can confirm the absence of carriage or infection. The United Kingdom screens a select number of high-risk cohorts (e.g. Accident and Emergency admissions) and since 2009 all elective admissions. The other three countries have a reactive risk-based approach recommending that only patients that are likely to be colonised are tested. Despite themselves being an important vector for transmission, health care workers are only regularly screened in The Netherlands. The reporting of MRSA is voluntary in Austria and Spain, whereas Germany and the United Kingdom have mandatory reporting for MRSA bacteraemia, the most advanced stage of MRSA. Only The Netherlands has mandatory reporting of screening results down to the level of carriage. The quality of the data across countries is therefore variable, and thus it is difficult to offer solid scientific evidence for the risk communication of MRSA.

While all countries in our study have a legal obligation to implement measures to assure basic levels of hygiene, implementation is not rigorously enforced. Only The Netherlands has controlled implementation. It appears that current approaches to MRSA control do not adequately reflect the risks associated with infection. Misconceptions about the role that patients, staff and the general public can play in spreading the disease highlight the importance of consistent application of infection control measures. It is also apparent that there is a need for greater attention to be paid to effective service organisation and hospital/care facility architecture, as well as policies which encourage the rational use of antibiotics.

Risk communication

In order to further examine the minutiae of risk communication of MRSA, we analysed data on helpdesk interactions pertinent to MRSA from a public health authority that hosts one of the biggest MRSA networks in Germany. After applying pre-determined eligibility criteria, data on 501 helpdesk interactions from between 2010 and 2012 were coded, with descriptive statistics generated for different classes of questions and also their trigger, grouped by caller type. The main finding from the study was that both health care professionals and private individuals regularly contacted the helpdesk to request information which was already available from various other public sources, suggesting this information is either insufficient or not being routinely accessed. Private individuals commonly required further explanations on the management of MRSA. They reported receiving incorrect or confusing information, or none at all, from health care professionals. This highlights the need for improved risk communication measures during patient discharge and transfer between services and levels of health care.

In another case study, we conducted interviews with a number of key stakeholders (journalists, public health officials and hospital representatives) regarding the strengths and weaknesses of risk communication surrounding MRSA that has been delivered in the United Kingdom over the past decade. Having clean hands, being "bare below elbows" and the presence of alcohol gel dispensers were the main goals for commentators, with MRSA appearing to become a catalyst for a broader discussion around quality of care. The complex reasons for the increase of MRSA prevalence were thus narrowed down to hygiene issues and developed into a control mechanism for staff: patients were asked to check whether their nurse or doctor was bare below the elbow and whether they had washed their hands before dealing with them. Interviewees felt that the public was one of the key drivers of the MRSA discourse; without the fervent public interest, media coverage around MRSA could not have been sustained. Major barriers to effective risk communication were seen in a reactive communication policy. Journalists felt the need to communicate critical findings; however, a lack of access to first-hand information restricted them in this endeavour. A more proactive and transparent communication policy was seen by all as key to more balanced reporting of future health events.

Conclusion

Risk communication is focused on individual infection control measures. This narrow focus is congruous with the limited approach used in risk-based screening and surveillance. This results in obscuring the broader role that all patients, health care workers and members of the public play in spreading disease. The variability of recommendations within, and across, countries may be further contributing to these misperceptions. Having consistent European guidelines could improve infection control through encouraging effective risk compensating behaviour. Risk communication is not only about providing explicit scientific information