Policy Document

Antibacterial Resistance Policy

Background

The Australian Medical Students’ Association (AMSA) represents all of Australia’s 17,000 medical students. AMSA believes that all communities have the right to the best attainable health. Accordingly, AMSA advocates on issues which impact health outcomes of communities in Australia and globally.

Bacteria resistance to almost all known antibiotics have emerged [1]. International trade and travel has led to the spread of antibiotic resistant bacteria throughout the world [2]. As Dr Keiji Fukuda, World Health Organisation (WHO) Assistant Director-General, noted in the WHO report on antimicrobial resistance ‘a post-antibiotic era- in which common infections and minor injuries can kill- far from being an apocalyptic fantasy, is instead a very real possibility for the 21st Century’ [3].

Antibiotic resistance is a significant issue from a public health perspective. Antibiotics are used in many aspects of medical practice such as: surgery, organ transplantation and chemotherapy. Antibiotics are also commonly used as prophylaxis or to treat bacterial infections that frequently complicate medical procedures [4]. Every year hospital acquired antibiotic resistant infections account for around 80,000 deaths in China, 30,000 in Thailand, 25,000 across the European Union and 23,000 in the United States [5]. The direct annual healthcare costs are estimated to be 1.5 billion Euros in the European Union [5], US$20 billion in the United States [6] and about $A1 billion in Australia [7]. In 2013 the World Economic Forum identified antibiotic resistance as a global risk requiring international action [8].

Antibiotic use is the most important factor behind antibiotic resistance [6]. Antibiotic use includes antibiotic overuse, misuse and underuse. Nearly half of all antibiotic use is considered to be unnecessary or not optimally effective [6]. Inappropriate prescribing is not limited to individual prescribers and a large analysis of teaching hospitals across the world found 41-91% of antimicrobial use was inappropriate [9]. In developing countries many of those supplying antibiotics may not be medically trained [10]. Additionally, a lack of comprehensive surveillance data makes it difficult for prescribing guidelines to be accurate meaning even well trained prescribers may lack the information required to prescribe antibiotics appropriately [10].

The impact of antibiotic resistance is further compounded by the lack of development of new antibiotics. Since the 1980s no new classes of antibiotics have been discovered [11]. Less than 2% of drugs currently under development by the fifteen pharmaceutical companies who were responsible for over 90% of the antibiotics released from 1980 to 2003 are antibiotics [12].

In Australia each year 23 million community antibiotic prescriptions are issued, This is equivalent to 20 per 1000 population per day, which is twice the rate seen in the Netherlands [13]. This has led to a call from the National Prescribing Service to reduce antibiotic prescribing by 25% to bring Australia into line with the OECD average of defined daily dose of antibiotics per capita/per day [14]. Discouragingly, no comprehensive national data on antibiotic resistance exists in Australia. Studies of key bacterial species such as Staphylococcus Aureus demonstrate that resistant strains, such as methicillin-resistant Staphylococcus Aureus have increased dramatically including a doubling of resistant rates in Queensland, South Australia and Victoria in the last 10 years [15]. Additionally, all key mechanisms of multidrug antibiotic resistance in gram-negative bacilli that emerged overseas have now been found in Australia [16]. Therefore it is essential that the Australian approach to antimicrobial resistance, in regards to both its emergence and spread, be optimised.

Position Statement

AMSA believes that:
1. Antibiotic resistance is a significant threat to global health requiring urgent attention;
2. Australia requires a comprehensive national action plan to address antibiotic resistance; and
3. Medical students, as future health professionals, have an important role to play in raising awareness of and addressing antibiotic resistance.

Policy

AMSA calls upon:

1. The Australian Government to:
   a. Develop a comprehensive national action plan to address antibiotic resistance, which includes the establishment of a national surveillance system;
   b. Support steps taken by the World Health Organisation to develop and implement a global antibiotic resistance action plan;
   c. Encourage the research and development of new antibiotics;

2. Australian universities to, ensure the issue of antibiotic resistance and appropriate antibiotic prescribing are adequately covered in the medical school curricula; and

3. Australian medical students to consider how antibiotic resistance is addressed in clinical settings and discuss antibiotic resistance with supervising health professionals.

References


Policy Details

Name: Antibacterial Resistance Policy

Category: F – Medicine in Australia

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