Medical Education

Education and Support for Healthcare Professionals to Prevent Future Pandemics: Report of a Conference Workshop

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ABSTRACT

Introduction: Pandemic infectious diseases pose a real threat to patients and public health in all countries around the world. Healthcare professionals need education and support to prevent these pandemics. However, the provision of this education is not always straightforward, and the views of healthcare professionals from different sectors and different countries should be continually taken into account when providing new educational resources. The following is the report of a workshop that was held to seek the views of healthcare professionals on e-learning and clinical decision support resources as means of providing education in pandemic infectious diseases.

Themes: There was consensus among delegates that just providing e-learning or clinical decision support on its own is not enough - you need to do more if you are going to drive usage, achieve clinical engagement, and ensure that users put their learning from the e-resources into action for the benefit of their patients. Drivers of these outcomes include the provision of content in the appropriate languages, overcoming technology barriers, linking the resources to CPD programmes or existing curricula, strategic engagement of different types of healthcare professionals, and giving due consideration to sustainability and cost effectiveness.

Concluding remarks: Providing e-learning and clinical decision support resources will be essential if we are to achieve the goal of preventing infectious disease pandemics. But this will not be achievable unless we listen to the practical problems that different stakeholders have in implementing educational programmes. The purpose of this paper is to share these challenges and potential solutions with the wider infectious diseases and global health communities.

INTRODUCTION

Pandemic infectious diseases pose a real threat to patients and public health in all countries around the world. In recent years, there have been outbreaks of Zika and Influenza, and there are fears of further outbreaks of Ebola.[1][2]

Healthcare professionals need education and support to prevent these pandemics. However, the provision of this education is not always straightforward, and the views of healthcare professionals from different sectors and different countries should be continually taken into account when providing new educational resources.

The following is the report of a workshop that was held to seek the views of healthcare professionals from different sectors and different countries on e-learning and clinical decision support resources as means of educating healthcare professionals in pandemic infectious diseases. The workshop took place at the Geneva Health Forum 2018 on the 11 April 2018 in Geneva, Switzerland. The Geneva Health Forum is a forum for the dissemination of innovative practices in global health. It enables discussions on global health issues which are based on practical experiences from around the world. It brings together stakeholders from a range of sectors including health, academia, politics, and civil society. It is run by the University Hospitals of Geneva and by the University of Geneva.

The workshop was comprised of delegates with an interest in education for healthcare professionals to prevent future pandemics. The delegates were from Europe, Africa and Asia and represented different sectors in healthcare including public health, infectious diseases, and primary and secondary care.

The corresponding author (KW) introduced the workshop and gave an outline of BMJ's resources in clinical decision support – BMJ Best Practice – and e-learning – BMJ Learning. Both resources can be used to help doctors and other healthcare professionals to recognise, report and refer patients with pandemic infectious diseases.

BMJ Best Practice supports medical professionals with their clinical decisions at the point-of-care. It provides content that is evidence based, continually updated, and at the same time

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practical and actionable. It gives answers that are structured around the patent consultation and that fit with the clinical workflow. It is available online and offline (via an app) and can be accessed on a wide range of different electronic devices.

BMJ Learning provides interactive and multimedia medical education. It covers clinical and non-clinical topics and both common and rare conditions – from influenza to Ebola. It is available in a variety of interactive formats, including text, images, animation, audio and video – to suit different contexts and different learners[3]. The content is typically case based and contains clinical scenarios - giving learners the opportunity to apply learned knowledge. There are assessment questions at the end of the resources to enable learners to test the knowledge that they have gained.

The second author (ER) presented the objectives of the educational and clinical decision support resources and how they have been implemented so far, outlining the main impacts and success stories. ER concluded by identifying the key ingredients needed to sustain initiatives such as this. These are: a committed leadership with a plan to support initiatives into the long-term; an enabling environment conducive to accrediting online learning as source of continuing professional development (CPD); and the integration of online learning resources into the medical academic curriculum.

The third author (AH) gave an outline of the importance that outreach and engagement to the relevant healthcare groups and professionals has been across all elements of educational programmes. It was noted that it is not advisable to simply turn on access to a resource and assume users will naturally change their behaviour without prompt or support. The outreach has been conducted across a range of digital and online channels and further supported with face-to-face engagement. There were a number of examples highlighted such as email campaigns, social media targeting, case study interviews, podcast series and knowledge quizzes.

THEMES

The delegates then discussed the resources and other issues related to pandemic infectious diseases in more detail.

The first theme that emerged from the discussion was one of language. The resources are available in English and have been translated into several languages including Portuguese, Chinese, Georgian, Ukrainian, Azerbaijani, Vietnamese and Russian. English is the first language of a number of countries that are at risk of an infectious disease pandemic. It is also the language of medicine and healthcare in other countries and so is widely understood by doctors. However, there are other countries at risk where healthcare professionals do not speak English and so translation is required in these cases. In some countries the doctors might understand English but frontline community health workers might not understand it and so translation would then be required.

A second theme that emerged is that, although the clinical resources like those provided by BMJ Best Practice and BMJ Learning are vital, they will not meet the needs of all learners. Some learners from a public health background need resources that are based around epidemiology and community health. They need these resources to help them learn how to conduct public health needs assessments and to develop managerial and leadership skills. Delegates were also interested in other infectious disease – besides pandemic infectious diseases. These included neglected tropical diseases, tuberculosis and other infectious diseases that place a high burden on the countries in question.

A third theme of the discussions was barriers to access of the resources. Online connectivity is an issue in many of the low-income counties that are most at risk of pandemics. Connectivity may be absent or low in certain countries. The delegates agreed that low bandwidth resources would be required in many countries or that an app might be required (BMJ Best Practice is available via an app). Delegates stated that the only electronic devices that were available to many healthcare professionals were smart phones and so it was essential that the resources were mobile-friendly.

The fourth theme was that of the exact audience that the resources were targeted at. There was consensus that many of the countries that were most at risk had a shortage of doctors and in particular a shortage of infectious disease specialists. Delegates felt that as a result the resources needed to be suitable for frontline primary care doctors – this is because these were the ones who would be responsible for recognising, referring and reporting most patients. Resources for health promoters and community health workers would be welcome also.

The fifth theme was continuing professional development (CPD). Delegates agreed that countries at risk of pandemics were often the same countries where CPD is not compulsory or where frameworks for CPD were weak. There was a realisation that many low-income countries were at different stages in their journey to introduce CPD. However, the provision of e-learning and online clinical decision support were seen as opportunities to develop an infrastructure for CPD and that they can be a means of demonstrating tangible and positive outcomes from CPD.

The sixth theme related to the involvement of low income countries. Delegates realised that the resources were created by BMJ and independent international experts, however they were keen that local healthcare professionals be involved in the resources also. There was support for the process of involving local healthcare professionals in the quality assurance of translated content. Delegates were also interested in allowing local healthcare professionals to have input into country portals that act as points of entry into the resources.

The seventh theme related to blending the online resources with face-to-face education that healthcare professionals were already receiving. It was felt that initiatives such as this

would be more likely to succeed if they could be integrated into existing curricula. Ideally the resources would be used to drive quality improvement programmes but delegates considered that a great deal of support would be needed in certain countries before they would be ready to undertake these programmes in a formal and systematic manner.

The eighth and final theme that was discussed concerned the sustainability of initiatives in this field. Delegates discussed other projects that they had been involved with in the past that were too expensive or not sustainable. Some had been involved in "train the trainer" programmes. The purpose of these programmes had been to cascade new guidelines from the Ministry of Health or other authorities to the frontline. However, delegates stated that these programmes were slow and expensive and often did not work into the long term. There was optimism among delegates that e-learning and online clinical decision support resources should be more sustainable. They also felt that online resources would be scalable and thus be more cost effective than other methods of reaching healthcare professionals.

CONCLUDING REMARKS

Even though the purpose of the workshop was to discuss e-learning and online clinical decision support, much of the discourse covered issues around the online resources. There was consensus that just providing e-learning or clinical decision support on its own is not enough - you need to do more if you are going to drive usage, achieve clinical engagement, and ensure that users put their learning from the e-resources into action for the benefit of their patients. Drivers of these outcomes include the provision of content in the appropriate languages, overcoming technology barriers, linking the resources to CPD programmes or existing curricula, strategic engagement of different types of healthcare professionals, and giving due consideration to sustainability and cost effectiveness[4].

Providing e-learning and clinical decision support resources will be essential if we are to achieve the ultimate goal of preventing infectious disease pandemics. But this will not be achievable unless we listen to the practical problems that different stakeholders have in implementing educational programmes. The purpose of this paper is to share these challenges and potential solutions with the wider infectious diseases and global health communities.

CONFLICTS OF INTEREST

KW works for BMJ Learning and BMJ Best Practice which produce a range of resources in infectious and non-infectious diseases.

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