



An evaluation of our antimicrobial resistance introductory e-learning session, and national infection prevention and control training

Executive summary

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Background

In 2015 Health Education England (HEE) launched an e-learning session [Reducing Antimicrobial Resistance: An Introduction](#), to support all health and social care staff – both clinical and non-clinical - in a variety of settings to understand the threats posed by antimicrobial resistance (CMO [2013](#) & O'Neill [2014](#)), and ways they can help to tackle this major health issue. Our [2016 – 2017 mandate](#) “Delivering high quality, effective, compassionate care: Developing the right people with the right skills and the right values” requires us to evaluate the visibility and uptake of our [introductory e-learning session on antimicrobial resistance](#), that has a particular focus on infection prevention and control, to assess individual and organisational buy-in and usage.

Methodology

The aims of this work were twofold - to explore:

- (i) the use of the [antimicrobial resistance introductory e-learning session](#) HEE produced
- (ii) delivery of infection prevention and control education.

A survey was devised in consultation with national leads from Public Health England, NHS Improvement and the Royal College of Nursing.

Respondents were asked if they:

- were aware of our [introductory e-learning session](#) on antimicrobial resistance;
- have found this beneficial in raising health-worker awareness on antimicrobial resistance and/or infection prevention and control and/or antimicrobial stewardship;
- were actively promoting this within their organisations;
- had encouraged staff to use this as a recommended but non-mandatory training resource;
- were collecting data on the number of staff that have completed this within their organisation;
- know of any barriers and gaps preventing them/their organisation from adopting this as part of your core staff training;
- know what improvements could be made to this to enhance uptake and address their organisation's learning needs around antimicrobial resistance for all staff, or for specific staff groups (if any);
- would consider making this mandatory for all staff within their organisation;
- used any other training sessions for educating staff on antimicrobial resistance.

For infection prevention and control education, respondents were asked:

- about the formats of training
- the topics covered as part of the training
- who the target audience were for each of the topics
- examples of good practice that they could share with us and

- examples of national e-learning sessions they use within their organisations.

Participation in national awareness raising campaigns by organisations was also explored.

Results

We received 37 responses from various organisations with 78% confirming they were aware of HEE's introductory e-learning session on antimicrobial resistance. More than half of respondents found this session beneficial in raising health-worker awareness on antimicrobial resistance and/or antimicrobial stewardship and/or infection prevention and control. More than a quarter of organisations are actively promoting this to staff. Organisations are encouraging staff to use this session as a recommended but non-mandatory training resource (24%); induction training for all staff (3%); induction training for staff working in specific specialties/areas (3%); mandatory update for staff working in specific specialties/areas (3%); and mandatory update for all staff (3%).

68% of organisations will consider making this session mandatory for all staff whilst 8% are collecting data on the number of staff that have completed this session. When asked on what barriers and gaps prevent them/their organisation from adopting this session as part of their core staff training (if any), the key words that emerged were access, awareness and pressures. When asked about improvements that could be made to this session to enhance uptake and address their organisation's learning needs around antimicrobial resistance for all staff, or for specific staff groups (if any), the key words that emerged were access, basic and mandatory. 70% of organisations confirmed they use other training sessions for educating staff on antimicrobial resistance. Additional comments received and e-LfH usage data for this session have been explored further in the report.

When probed on participation in national awareness raising campaigns 70% actively promote and participate in [European Antibiotic Awareness Day](#) (held annually on 18 November) and [World Antibiotic Awareness Week](#) (held in the same week as EAAD); 73% actively promote and participate in [International Infection Prevention Week](#) (held annually in October); and 70% actively promote and participate in [World Hand Hygiene day](#) (held annually on 5 May). Details on this and delivery of infection prevention and control education are discussed in the report.

Conclusion

Awareness of the [introductory e-learning session](#) on antimicrobial resistance is good and that respondents found this session beneficial in raising health-worker awareness of antimicrobial resistance (infection prevention and control and/or antimicrobial stewardship).

The number of organisations who are actively promoting this session to staff could improve. There are opportunities to utilise this session as part of mandatory, induction and/or non-mandatory training specifically during 'periods of increased incidence' or outbreaks of infection and during 'special measures'. As infection prevention and control training is mandated for all staff, antimicrobial resistance awareness could be covered as part of these mandated sessions by health and social care and training providers. National infection prevention and control learning sessions could mention the threats posed by antimicrobial resistance (CMO [2013](#) &

O'Neill [2014](#)) and the [new national ambitions to reduce healthcare associated Gram-negative bloodstream infections in England by 50% by 2020](#).

To help achieve the aims above, we have set out a number of actions targeted at ourselves, and recommendations healthcare providers and other stakeholders.

Actions and recommendations

Actions agreed by Health Education England

1. Ensure that the educational package targeted at management and executive teams to be created this year on sepsis covers elements of antimicrobial resistance, infection prevention and control and antimicrobial stewardship (HEE [2016](#) & HEE [2017](#)).
2. Include learning sessions on infection prevention and control and antimicrobial resistance within the guide that signposts prescribers and other staff to available educational sessions that will help support learning in the system (HEE [2017](#)).
3. Include elements of infection prevention and control and antimicrobial resistance and stewardship as part of the work exploring the role of an individualised online formative assessment tool for health students and professionals (HEE [2016a](#) & HEE [2017](#)).
4. Update learning materials found on the eLfH platform to reflect the new national ambitions to [reduce healthcare associated Gram-negative bloodstream infections in England by 50% by 2020](#).
5. Work with NHS Improvement and Public Health England to improve information sharing around antimicrobial resistance training focussing on the educational resources that can be made available to support the target to [reduce Gram-negative healthcare acquired infections](#).
6. Create a centralised webpage on the eLfH platform for education and training resources around antimicrobial resistance - infection prevention and control and antimicrobial stewardship.
7. Promote learning resources on antimicrobial resistance, infection prevention and control and antimicrobial stewardship via our [Technology Enhanced Learning \(TEL\) Hub](#), currently being built.
8. Consider feedback on improvements that could be made to the [introductory e-learning session](#) on antimicrobial resistance as part of future updates.

Recommendations to healthcare and training providers

1. Promote the [introductory e-learning session](#) on antimicrobial resistance to all staff in both the public and private sectors.
2. Consider covering antimicrobial resistance as part of training solutions for learners via training frameworks or educational training sessions on infection prevention and control.
3. Consider the inclusion of the threats posed by antimicrobial resistance to the future of modern medicine (CMO [2013](#) & O'Neill [2014](#)) within mandatory infection prevention and control training at induction and updates.
4. Raise awareness of the new national ambitions to [reduce healthcare associated Gram-negative bloodstream infections in England by 50% by 2020](#) as part of training solutions provided to staff around infection prevention and control, antimicrobial resistance and antimicrobial stewardship.
5. Assess the role of the [introductory e-learning session](#) on antimicrobial resistance as part of mandatory, induction and/or non-mandatory training specifically during 'periods of increased incidence' or outbreaks of infection and during 'special measures'.
6. Consider the role of nationally available training materials on antimicrobial resistance - infection prevention and control and antimicrobial stewardship as part of local staff training solutions.
7. Consider the role of national awareness raising campaigns in improving staff awareness on the threats posed by antimicrobial resistance (CMO [2013](#) & O'Neill [2014](#)) and [new national ambitions](#) on antimicrobial resistance, infection prevention and control and antimicrobial stewardship.
8. Promote the [Antibiotic Guardian campaign](#) and encourage staff in both the public and private sectors to sign-up as [antibiotic guardians](#).