# Supplementary materials

A: Glossary

B: Guideline development and conflicts of interest

C: Continuing Professional Development

D: Lay materials

E: Consultation

## A: Glossary

**Active surveillance:** Admission regimen that involves testing of patients to detect the presence of multi-drug-resistant organisms.

**Antimicrobial:** A substance that kills or inhibits the growth of micro-organisms.

Bacteraemia: see bloodstream infection

**Bloodstream infection:** The presence of micro-organisms in the blood stream, sometimes also referred to as bacteraemia.

**Care area:** Any portion of a healthcare facility where patients are intended to be examined or treated.

**Cleaning:** Methods that physically remove soil, dust and dirt from surfaces or equipment.

**Cohorting:** Imposed grouping within an area of a hospital ward of patients or staff potentially exposed to designated diseases.

**Colonization:** Situation whereby micro-organisms establish themselves in a particular environment, such as a body surface, without producing disease.

**Community-acquired:** Infection or colonization that is acquired outside of hospitals.

**Community-associated:** Usually defined as infection or colonization detected in an outpatient or within 48 hours of hospital admission.

**Contact precautions**: Hand hygiene is performed before touching the patient and prior to wearing gloves, and wearing gloves when touching the patient and the patient’s environment. A single room is preferred; otherwise, discussion with infection control personnel to consider cohorting or not moving the patient. An apron/gown is worn for all patient interactions that may involve contact with the patient or potentially contaminated areas in the patient’s environment. Donning personal protective equipment on room entry and discarding before exiting the patient room is required to contain pathogens, especially those that have been implicated in transmission through environmental

contamination.

**Healthcare-associated (acquired):** Infection or colonization detected in an inpatient more than 48 h after hospital admission.

**Infection:** Invasion by and multiplication of pathogenic micro-organisms in the body, producing tissue injury and disease,

requiring treatment.

**Long-term care facility (care home/nursing home):** Provides accommodation and meets the needs of patients with chronic illness or disability who cannot care for themselves.

**MRSA:** meticillin (or methicillin) resistant *Staphylococcus aureus*

**Outbreak:** At least two similar (i.e. not distinct) cases related in time and place.

**Passive surveillance:** Review of routine clinical samples of all patients by microbiologists on reporting results from the laboratory.

**Personal protective equipment:** The equipment a person wears to protect themselves from risks to their health or safety, including exposure to infections (e.g. disposable gloves and disposable aprons).

**Screening of patients:** Sampling potential colonization sites

**Standard infection control precautions (SICPs or Standard Precautions):** Basic infection prevention and control measures necessary to reduce the risk of transmission of infectious agents from both recognized and unrecognized sources of infection. Sources of (potential) infection include blood and other body fluid secretions or excretions (excluding sweat), non-intact skin or mucous membranes, and any equipment or items in the care environment that could have become contaminated.

## B: Guideline development and conflicts of interest

*Guideline development process*

National Institute of Health and Care Excellence. Developing NICE guidelines: the manual. Process and methods; 2018. Available at: https://www.nice.org.uk/process/pmg20/chapter/introduction [last accessed May 2021].

**The Working party members declared following conflicts of interest:**

HH has been in receipt of research funding from Astella and Pfizer in recent years and has received a consultancy fee from Pfizer in the last three years.

APRW: Consultant on Drug Safety Monitoring Board for Roche, Advisory Board for Pfizer.

## C: Continuing Professional Development

1. MRSA screening

(a) Should be applied to all patients admitted to hospital

(b) Is required following topical decolonization

(c) Environmental screening is only advisable in outbreak investigation

(d) Surveillance of non-bacteraemic MRSA should be considered in low prevalence areas

(e) Should not be routinely applied to staff

*Answer c, d, e*

2. MRSA transmission

(a) Survival of MRSA on surfaces is short so equipment can be quarantined and then used.

(b) Hand hygiene is not necessary between patients if only using the same electronic equipment.

(c) Colonization is not a risk for transmission in the majority of patients.

(d) Hand hygiene is required between different patient environment even with no patient contact.

(e) Single room isolation may not be used when risk assessment suggests prioritisation of other patients

*Answer d, e*

## D: Lay materials

Please see the attached documents





## E: Consultation

### Internal consultation

| **Section** | **Comments** | **Response** |
| --- | --- | --- |
| **LM** | | |
| 8.2 | Section 8.2 makes comment on no new evidence around repeat screening for positive/negative screens, and then notes the expert opinion of the panel. This translates to recommendation 2.2 stating “repeat MRSA screening 2-3 days following the therapy, to determine whether decolonization was successful or not”. Whilst I agree with this, I think there should be consideration given to a recommendation, or at least a good practice point, that discusses local evaluation of the need for more than one ‘confirmation of clearance’ swab. Many organisations require 3, and there is some evidence for the value added from sequential swabbing over several days, although I very much admit there is a cost to this, and that cost-benefit should be evaluated locally. Note: <https://www.sciencedirect.com/science/article/pii/S1198743X17304809#cebib0010>, <https://www.sciencedirect.com/science/article/abs/pii/S0196655310001252>, & <https://aac.asm.org/content/43/6/1412> | We don’t think there is sufficient evidence to support this, and therefore we don’t feel this should be included as GPP. |
| 8.5 | Should there also be a comment here on staff colonised with MRSA who have active ABSSSIs or who have eczema/dermatitis etc in terms of the GPP 5.1? Also, is there a place for confirming PVL status in staff colonised with MRSA to aid decision to exclude from work? I admit I have no evidence for the latter, but for the former there may be some.  GPP 5.1. and 5.2 in one place seem almost contradictory “Develop local policies to guide the decision when staff should be excluded from work” vs “For staff members with nasal carriage….exclusion is not required”  Also, how does this mesh with the RCN stance that it is a RIDDOR event (ie work place associated)? | We have made changes to order in which these GPPs are made, which we hope makes it clearer for the reader.  We do not think that MRSA acquisition could be considered as RIDDOR event: we believe that it would be difficult to establish where and when MRSA was acquired. We still think that local policies for the course of action are better in this situation. |
| 8.9.2 | In low MRSA bacteraemia settings, Consider surveillance of MRSA colonisation? Or MRSA (non-bacteraemiac) infection? Unclear which (or both) is meant. | Thank you for the suggestions, we rephrased this and specified that by ‘acquisition’ we meant both colonisation and infection other than bacteraemia. |
| 8.13 | Should there be a GPP about risk assessing where single-use items can be used for patients with MRSA< particularly in high risk areas like burns (a perennial question to me) | We did not find any evidence to make this recommendation, even as a good practice point but we would not support the re-use of single use items, even if they are used on a same patient. |
| 8.14 | In one of the previous sections it was (correctly) noted about the need to change cloths/linene/towels etc. A repeated question to me is around the role of fomites in onwards within-household transmission, and in re-colonisation of MRSA colonized individuals post decolonization. Can we add a GPP that patient leaflets should therefore make mention of the role of fomites and the need for change of linen/towels etc? Is there enough evidence to support that this is a contributory factor to re-colonisation post decolonization? | Thank you for this, we added this as a GPP |
| 9 | Should there also be an item on further molecular characterization of circulating MRSA to enable (a) transmission network analyses to better understand mechanisms of spread, and (b) enable characterization of virulence factors (including but not limited to PVL) which may provide insight into prioritization for decolonization/isolation. This is particularly relevant as molecular modernization comes to microbiology. | We do not think that this would be a reasonable recommendation or even GPP. This technology is still state of the art which is not available to some hospitals and would be too expensive to perform routinely. |
| General | I may have missed it, and apologies if I have, but where does it discuss need to attempt decolonization pre-surgery and confirm negativity (ie at least get one or sometimes 3 negative swabs), vs decolonizing in the immediate pre-surgery period then just proceeding with the operation (ie decolonization in immediate 5 days prior, then operate on the 5th day). In my mind this is one of the big questions surgeons keep on asking and for which we should either pass an opinion, or as a minimum put as a clear area for research. | Thank you for this comment and we now think that the question of surgical patients may need to be addressed in more depth. We will wait until more feedback from external consultation to give this issue an appropriate consideration. |

External consultation

TBC