

worthwhile commented, but the results are still supportive of an overall positive benefit, despite some minor irritations to do with the presentation and delivery. Whether this is borne out in their subsequent practice as doctors remains to be seen, but as a positive attitude is a prerequisite for a change in behaviour, this programme is worthy of further investigation.

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## Glove use by ancillary and support staff: a paradox of prevention?

Sir,

Correct glove use is a cornerstone of the prevention of hospital-acquired infection (HAI) and, together with hand hygiene, is a key barrier to the chain of infection. Although central to the Standard Precautions for the Prevention of Infection<sup>1</sup> and a major action point of the World Health Organization's Global Patient Safety Challenge,<sup>2</sup> incorrect glove use and corresponding failures in hand hygiene may be widespread and counterproductive, and may create a paradox of prevention.

Incorrect glove use is common in the retail sector. Contact of gloved hands with raw or cooked foods, unrelated surfaces or equipment, cash, clothing, face and hair can be observed regularly; occasionally, only a single glove is worn while both hands are used for contact with food and all other items. Failing to recognize the need for adequate hand hygiene, food handlers frequently wear gloves without changing them for extended periods, and it is tempting to imagine that the wearer believes that the use of gloves exempts them from further hygiene precautions. An audit of food handlers in fast food restaurants revealed greater contamination of foods handled with gloved hands compared with foods handled by staff without gloves.<sup>3</sup> There was a tendency for workers to wear gloves for extended periods, associated with complacency towards matters of hygiene; glove use was considered to be counterproductive and a significant vector for the transfer of bacteria. May this also be the case for hospital ancillary staff?

A brief and informal overview of glove use in two acute hospitals confirmed a suspicion that glove use and associated hand hygiene falls far below a necessary minimum standard for many support staff. Ancillary and cleaning staff in both hospitals generally used disposable gloves in preference to more robust household gloves. Gloves were donned appropriately at the start of cleaning duties, but were rarely changed between individual tasks, or between similar tasks performed in different clinical areas. Informal discussions with ancillary staff at each hospital indicated that gloves, in many instances, were changed no more often than between rest periods. Some wore disposable gloves to the point of destruction; this included staff

involved in cleaning of clinical areas, collection and removal of clinical wastes, and kitchen staff plating patients' meals (one hospital). When asked about training, only two of seven individuals could provide any information. Each had been told to wear gloves at all times and had taken this instruction literally. It was not clear if there had been any additional instruction concerning the need to remove gloves and wash hands prior to donning fresh gloves for the next task, but this seemed unlikely. Time constraints and pressure of work were used to explain the realities of glove use, suggesting perhaps that proper instruction had been given but was not practiced.

The National Health Service Cleaning Handbook recommends household-type gloves for ancillary staff involved in the maintenance of hospital hygiene, colour-coded for individual tasks, or disposable latex gloves.<sup>4</sup> The latter may have inadequate strength and durability for the range of cleaning tasks undertaken, although many infection control teams support their use, predicated largely on the presumed advantages afforded by a single-use product. Model method statements specify that gloves should be put on at the beginning of each cleaning task, with handwashing performed after removal of gloves at the end of the task,<sup>4</sup> but how often does this happen? Disposable gloves should encourage regular change, at least between tasks and between work in different clinical areas, ward bays, isolation rooms etc. Potential pathogens present throughout the hospital environment may be transferred to the outer surface of gloves following contact with contaminated inanimate surfaces. These survive on gloves and can later be transferred to other surfaces.<sup>5</sup> In the case of ancillary staff responsible for ward hygiene, this may result either in failure to decontaminate environmental surfaces or in contamination of previously cleaned surfaces. Failure to change or remove contaminated gloves was a major component of poor hand hygiene compliance among nursing and clinical staff.<sup>6</sup> Glove use can decrease the frequency and adequacy of subsequent handwashing,<sup>6,7</sup> with cleaners and food service staff having the shortest handwashing times.<sup>8</sup> It is thus possible that cleaning and related duties spanning more than one ward or clinical department will contribute to widespread environmental contamination and increase the risk of HAI unless glove use and hand hygiene are satisfactory.

The reasons for poor performance in glove use by ancillary staff cannot be ascertained from the brief observations reported here. It seems appropriate, however, to consider that failings in training and supervision underlie poor performance. Initiatives to improve patient safety and address deficiencies

in hospital hygiene, including the use of gloves as part of wider hand hygiene improvements, should include strategies to ensure their prompt and timely removal, and effective handwashing, to ensure success.

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## Increasing macrolide susceptibility of methicillin-resistant *Staphylococcus aureus*

Sir,

Methicillin-resistant *Staphylococcus aureus* (MRSA) is a leading cause of hospital-acquired infection throughout the world.<sup>1</sup> An important feature of MRSA has been the acquisition of resistance to a