How to ensure better infection control in the patient’s home

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Infection prevention and control is an enormous challenge within the hospital environment, but with the changing face of the NHS meaning that more complex care is being provided in the community and within patients’ homes, the goal of zero tolerance of preventable healthcare-associated infections (HCAIs) is even more of a challenge. So-called ‘super-bugs’ put a tremendous strain on NHS resources, as well as compromising patients’ recovery, quality of life and wellbeing, and are increasingly being seen in the community. This article looks at the provision of infection control in the community and how nurses need to organise services that involve patients in their own care. It also investigates the use of a range of infection control products, including a wash cap (octenisan® wash cap [schülke]), specifically designed for use in immobile patients.

KEYWORDS:
- Infection control
- Personal hygiene
- Wash caps
- Antiseptics

Infection prevention and control is an enormous challenge in UK healthcare settings. The National Institute for Health and Care Excellence [NICE] (2012) reported that about 300,000 people a year in England acquire an infection associated with their care as an NHS patient. These infections take on greater significance in the context of increasing antibiotic resistance, as healthcare-associated infections (HCAIs) are not always easy to treat and can result in serious complications (NICE, 2012). Meticillin-resistant Staphylococcus aureus [MRSA] and Clostridium difficile were reportedly responsible for approximately 9,000 deaths in hospitals and the community in England in 2007 (NICE, 2012). These so-called ‘super-bugs’ — bacterial species that are able to survive exposure to antibiotics — are often multidrug resistant and put a tremendous strain on NHS resources, as well as compromising patients’ recovery, quality of life and wellbeing. Crucially, they are increasingly being seen in the community (Institute for Healthcare Improvement [IHI], 2014). As well as investigating infection prevention and control in patients’ homes, the authors also look at a range of infection control measures specifically designed for use in immobile patients.

COMMUNITY CARE

Infection prevention and control can be hard to maintain within a hospital environment, but with the changing face of the NHS meaning that more complex care is being provided in the community and within patients’ homes (Department of Health [DH], 2009), the goal of zero tolerance of preventable HCAIs is even more of a challenge.

As the focus of care gradually moves from hospitals to the community and because the UK’s population is ageing (Royal College of Nursing [RCN], 2012) — due in part to medical improvements — an increasing amount of people with complex needs require healthcare input, both in nursing and residential care, and also in their own homes. The amount of people with long-term complex care needs, such as those with diabetes, is also rising (RCN, 2012), and these people are also at greater risk of infection.

Infection prevention and control involves removing sources of infection as well as preventing the spread of infection.

The main sources of infection are bacteria and viruses, fungi, and yeasts, and these microorganisms can live on people and animals, in the environment, and in food and water. In the patient’s home, cleaning utensils such as mops, personal hygiene equipment such as toothbrushes, and household appliances such as fridges can all collect harmful microorganisms (Health Protection Agency [now Public Health England] [HPA], 2007).

This is also true of healthcare-related devices, such as catheters, or even equipment that the patient may have been discharged with, such as crutches or wheelchairs, as well as surgical site infections (SSIs) (IHI, 2014).

MRSA infections used to be the preserve of hospital patients, but are increasingly being found in patients’ homes and nursing homes (known as community-associated MRSA or CA-MRSA), often presenting as skin infections (David and Daum, 2010).
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Other harmful microorganisms can be airborne (such as the flu virus) or transmitted through contact by poor hand hygiene — such as C. difficile, which causes diarrhoea.

Microorganisms that can cause infection abound in non-sterile environments and cuts, abrasions and areas that are subject to invasive procedures all become vectors of infection — a way for harmful microorganisms to enter the body and infect a patient (IHI, 2014).

Ulcers and wound sites are obvious areas that will be susceptible to microorganisms such as MRSA, and care must be taken when treating wounds that contamination does not occur — good hygiene and aseptic dressing techniques for wound care, including not re-using single-use items are essential (NICE, 2008).

WHO IS AT RISK?

Some people are more at risk of infection. The very old and very young may have compromised immune systems, as will people with underlying conditions (Vasto et al, 2007).

Similarly, people who have underlying conditions such as diabetes require meticulous skin care, as the peripheral neuropathy that often accompanies the disease can mean that injuries to the foot go unnoticed and cuts and abrasions in that area can become portals of infection (as well as there being an increased risk of foot ulceration) (Mousley, 2003).

NICE guidelines highlight how important hand-washing is for preventing HCAIs in the community (NICE, 2012). Healthcare staff must guard against transferring microorganisms from one patient to another in the community by scrupulous hand-washing — particularly when dressing wounds, handling canulas or feeding tubes, all prime areas of infection transmission.

NICE guidance cites improved hand-washing regimens as resulting in between 30 and 45% reductions in infection rates (Ryan et al, 2001; Fendler et al, 2002). Hand-washing is essential to stopping the spread of infection and should be performed after every patient contact.

HOW DOES INFECTION TAKE HOLD IN THE COMMUNITY?

The patient’s home and, indeed, the patient themselves, can act as a reservoir for microorganisms (HPA, 2007). There are places where microorganisms can take hold and thrive, including pets, furniture, food and water, as well as personal hygiene items including towels, wash bowls, sponges and flannels.

Patients who live alone, are immobile, have cognitive impairment, or who are not able to look after their personal hygiene (in particular unwashed clothes, skin folds, hair, and nails), risk providing even more portals for infection. It is vital that, as well as thinking about infection control with regard to their own hand hygiene and clinical practices, nurses take account of the patient’s hygiene and physical state (HPA, 2007).

HOW CAN COMMUNITY NURSES PREVENT INFECTION?

Breaking the chain of infection in the patient’s home involves targeting one or more portals to halt the spread of microorganisms (HPA, 2007). This can include:

- Using antimicrobial therapy — with careful stewardship — to destroy the source of infection
- Promoting good personal hygiene
- Protecting the patient through immunisation
- Preventing microbes from entering the body through the use of protective clothing
- Use of correct aseptic technique by community nurses when handling invasive devices, and covering wounds and catheter insertion sites, for example, with sterile dressings, etc.

The patient’s personal hygiene also plays a crucial role in interrupting the spread of microbes.

Personal hygiene

As well as focusing on the nurse’s actions and the patient’s environment when seeking to interrupt the spread of microorganisms, it is also important to look at the patient themselves. The HPA (2007) offers the following guidance on patient’s personal hygiene:

- They should regularly bathe, shower, or undergo a full body wash to avoid the accumulation of bacteria on the skin. This is particularly important for those who are incontinent of faeces or urine.
- Patients should have their own personal hygiene items such as towels, toothbrushes, razors, flannels, etc.
- Separate flannels/cloths must be used to wash the patient’s face/body and genital/anal areas (having different-coloured flannels can help here). Disposable cloths can be used instead.
- In nursing homes in particular, patients should have their own wash bowls.

When community nurses are commissioning or delegating care they need to ensure that all of the staff involved pay special attention to patients who are immobile and unable to wash themselves — or those who may have cognitive impairment or perhaps do not want to be washed.

Also, unlike in hospital where staff are on-hand 24 hours a day to ensure that infection control protocols are being followed, in the community — particularly in patients’ homes — this is not possible.

Therefore, it is necessary for community nurses to research infection control products that can be used by carers and/or patients themselves as part of an everyday routine to help protect against infection. This is where decontaminating cleansing ranges have a useful application, as the use of disinfectant body lotions, shampoos and mitts can aid the
be used alongside octenisan wash mitts in bedbound patients, or those with limited mobility who are unable to shower or bathe. The wash caps are impregnated with octenidine, a broad spectrum antimicrobial (Figure 1) (Dettenkofer et al, 2002; Rigopoulos et al, 2009). Octenisan has a skin-friendly formulation, which means that it can be used regularly by nurses, both for cleansing and to help protect the patient from infection.

The range is free from artificial colours and perfumes and is suitable for all skin types — even patients who are sensitive to soap or hypoallergenic allergies.

The octenidine-impregnated wash caps have the following benefits:

- Single-use reduces risk of cross-contamination
- Convenient and easy for community nurses and carers to use
- They can be heated to body temperature to enhance patient acceptability.

Application
Before use, the patient’s hair should...
INFECTION CONTROL

be dry and untreated (no hair gel, mousse or hairspray). The cap is placed on the patient's head then massaged thoroughly and left for five minutes to completely saturate the hair. After use, the hair can be rinsed with water and dried if preferred by the patient, although this is not absolutely necessary, enabling easier care for bed-bound patients.

The single-use wash caps can be heated to body temperature in a microwave before use (for a maximum of 20 seconds at 600W), helping to make the experience of hair washing more comfortable for the patient. It is not necessary to use the wash cap in conjunction with any additional agent. During a full treatment period, the nurse should stress to the patient and/or carers that the hair should be combed as little as possible between wash cap applications.

Precautions

octenisan wash caps should not be applied in cases of known or suspected allergy to any of the ingredients (community nurses should crosscheck ingredients with patient notes). The caps should also be avoided in combination with anionic surfactants (compounds that act as detergents) as they can impair the cleansing action. Other precautions include:

- Do not use octenisan wash caps in combination with PVP iodine products
- Do not use the octenisan wash cap with other soaps,ointments, oils, enzymes or similar agents
- Use only for a limited period of time
- When using octenisan wash caps be careful not to allow eye contact with the solution. If the solution does get into the patient's eyes, rinse them thoroughly with water.

CONCLUSION

It is common practice now to provide infection control measures in the hospital environment, but with more care being provided in patients' homes, infection control prevention measures also need to be more accessible in the community setting.

With care moving closer to home and an increase in long-term conditions, there is likely to be a rise in immobility and problems with personal hygiene. Against this background, any range of products that makes infection control easier for nurses, carers and patients alike is to be welcomed.

References


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