MENTAL ILLNESS can affect a person’s ability to maintain good physical health and wellbeing – ensuring clients’ physical care needs are adequately met is a fundamental part of holistic nursing care (O’Carroll and Park 2007). A comprehensive review of the literature by Robson and Gray (2007) identifies the many physical health problems that people with mental health illness may experience. Mental ill health can have a negative effect on the immune system, putting mental health service users at increased risk of infection (O’Carroll and Park 2007), and it is important that this is recognised in the provision of physical care, such as attention to wounds.

Good aseptic technique is essential for all nurses, regardless of their branch or field of practice (Nursing and Midwifery Council (NMC) 2007), to minimise infection and promote healing. It is imperative that nurses working in mental healthcare settings are proficient in this skill and understand the theory behind it.

This article describes the principles underpinning aseptic technique and discusses them in the context of mental health nursing. Related issues, including necessary equipment and key steps in the procedure, are also addressed.

For ten years, the importance of physical care for mental health service users has been highlighted in a range of reports (Mentality and National Institute for Mental Health in England 2004, Department of Health (DH) 2006a, Disability Rights Commission 2006). Pre-registration mental health nursing students traditionally do not have the same opportunities as those in other branches of nursing to learn about the clinical skills associated with physical health care and to practise using them.

The chief nursing officer’s recommendations for mental health nursing (DH 2006b) emphasise the importance of including these skills in the pre-registration nursing curriculum and the role of mental health nurses in providing physical care. This is supported by the publication of Essential Skills Clusters (NMC 2007), identifying five key areas in which all nurses should be competent before registration. These are:

- Care, compassion and communication.
- Organisational aspects of care.
- Infection control.
- Nutrition.
- Medicine management.

The DH (2008) stipulates that all staff involved in undertaking aseptic technique should receive appropriate education, training and assessment in the skill, while criteria for proficiency in infection control stipulate that students should ‘safely
Good aseptic technique is essential for all nurses, regardless of their branch or field of practice
perform basic wound care using clean and aseptic technique under simulation’.

Users of mental health services may require wound care for injuries such as burns, self-harm, venous leg ulcers and abscesses related to intravenous drug use. Day et al. (2007) described how pre-registration mental health nursing students near the end of their course spent two hours in the clinical skills laboratory practising hands-on skills, building on the theory they had learnt. Students commented that this increased their confidence in attending to wounds. Day et al. (2007) also emphasised the importance of sound knowledge of underlying theory.

Like all other healthcare professionals, nurses in mental health services have a duty to protect clients from healthcare-acquired infections (DH 2004), which are estimated to contribute to 5,000 deaths a year in the UK (National Audit Office 2004). Infection control is now considered integral to the provision of safe, high quality health care (DH 2003, National Institute for Health and Clinical Excellence 2003, Pratt et al. 2007), and the routine use of aseptic technique to prevent the transfer of pathogens (Xavier 1999) is crucial.

Asepsis can be conventionally separated into surgical asepsis and aseptic non-touch technique, which maintains asepsis (Rowley 2001). The technique is most commonly used in the care of acute or complex wounds, and is recommended during any invasive procedure that breaches the body’s natural defences, such as the skin, or whenever these defences are already compromised (Endacott et al. 2009). It has been suggested that in some situations a ‘clean’ technique might be more appropriate than a rigorous aseptic technique, such as when managing chronic wound dressings. A clean technique follows the same principles as aseptic technique, but sterile equipment, such as gloves and dressing packs, is not as essential – clean, non-sterile gloves can be worn (Xavier 1999, Preston 2005). Box 1 lists situations when a clean technique may be appropriate.

The decision about which technique to use for a dressing depends on factors such as the nature and complexity of the procedure, the environment in which it is being carried out and service user-related factors (Hart 2007):

- A client’s immune status, which may be compromised by, for example, the presence of HIV or hepatitis virus (Finnie and Nicolson 2002, Robson and Gray 2007).
- A client’s age.
- Concurrent administration of steroids (Flores 2008).
- Type of wound (Box 2).
- Depth, location and size of wound.
- Lifestyle of client.
- Presence of an acute or chronic skin condition, such as cellulitus or impetigo (Finnie and Nicolson 2002).
- Nutritional status of client.

Therefore, before undertaking any procedure that may require aseptic technique a thorough assessment of the client is carried out. Medical notes, records and care plans should be consulted, and updated after the procedure has been completed.

Historically, aseptic technique has been associated with a number of nursing rituals and protocols, many of which are rooted more in tradition than evidence (Rowley et al. 2010). There has been limited research into evidence-based practice in aseptic technique, and variations in the way the procedure is performed have potential implications for infection control (Aziz 2009). Most importantly, the principles underpinning aseptic technique should be followed. These include:

- Demonstrating respect for the service user and his or her needs.
- Ensuring the professional’s hands are clean.
- Reducing the risk of airborne contamination.
- Using a non-touch or aseptic technique to ensure susceptible sites are not contaminated with micro-organisms.

Consideration of a service user’s individual needs and their comfort must be a priority when performing any clinical procedure. There should be a focus on communication, physical care needs, privacy and dignity. Before starting the procedure, it is important to confirm that the service user understands and consents to having it done, and to alleviate any anxiety they may have (O’Carroll and Park 2007).
Dressing a wound may be painful, so the nurse should check if any prescribed medication, such as analgesics or anti-emetics, has been administered in good time to take effect. Regardless of whether the procedure is carried out in a service user's home or another setting – such as a refuge, drop-in centre or inpatient unit – it is important to maintain privacy by closing doors and curtains, and avoiding unnecessary exposure of the client's body.

Thorough hand decontamination before and after every patient contact is crucial in preventing healthcare-associated infection (Pratt et al 2007) and the recommended protocol should be followed before any procedure requiring aseptic technique is undertaken. An alcohol-based hand rub should be easily accessible for hand decontamination throughout the procedure. If gloves are worn, it must be recognised that they are not a substitute for good hygiene; staff should decontaminate their hands before and after using sterile gloves.

Airborne infection is most likely to occur following activities, such as bed making or housework, that disperse dust, water or respiratory droplets into the air (Wilson 2006), so these activities should be completed before undertaking any procedure requiring aseptic technique. Other ways in which airborne contamination of wounds can be minimised include (Dougherty and Lister 2008):

- Closing windows and turning off fans.
- Exposing the wound for as short a time as possible.
- Dressing clean wounds before attending to wounds that are infected.
- Disposing of used dressings promptly in appropriate sealed waste bags.
- Restricting the movement of people in the area.
- Sites susceptible to infection should not come into contact with any item that could introduce pathogens. A non-touch technique – even for clean hands – protects the client and any sterile equipment (Wilson 2006, Dougherty and Lister 2008) assembled for aseptic technique. Such equipment – instruments, cleaning solutions, dressings, swabs and personal protective equipment, including gloves and gowns – should be collected before the start of the procedure. The minimum equipment might comprise:
  - A clean, flat surface, such as a table, bedside locker or dressing trolley, if available.
  - A dressing pack (Box 3).
  - Gloves.
  - Personal protective equipment, such as a single-use plastic apron.
  - Solution for cleaning or irrigation.
  - An appropriate wound dressing.
  - An alcohol-based hand decontamination preparation.

The type of dressing used will depend on the type of wound and the goals of treatment. The type of solution for wound cleaning or irrigation will depend on the procedure being performed or the type of wound being dressed. Examples include sodium chloride (normal saline), sterile water and antiseptic solutions. Where appropriate, and in accordance with local policy, it may be necessary to clean the perforated area of the liquid sachet with a chlorhexidine or alcohol swab before opening it (Dougherty and Lister 2008). Additional items such as scissors, specific-size sterile gloves, hypo-allergenic tape and syringes for irrigation may also be needed.

The expiry date and the outer packaging of all items required for an aseptic procedure should be checked before use. If the packaging is damaged in any way, the item should be discarded because the sterility of its contents may have been compromised.

In many clinical areas, a dressing trolley will be used. This permits the safe transport of necessary equipment and provides a clean, flat surface on which it can be arranged. If a trolley is used, its cleanliness will vary in different settings. It is imperative that the trolley is checked and, if found not to be clean, that appropriate action is taken in line with local policies. In a service user's home or a clinic it may be appropriate to use an alternative clean, flat surface such as a chair, table, or even the floor.

Personal protective equipment refers to items used to protect healthcare workers and service users from the potential spread of infection. The decision to wear sterile or non-sterile gloves should depend on the level of anticipated contact with susceptible sites or clinical devices (Pratt et al 2007, Flores 2008). Most commercially prepared dressing packs contain a pair of medium-size sterile gloves; any smaller or larger size, or a specific type of sterile glove, should be collected with the other required items before starting the procedure. Donning a pair of sterile gloves without contaminating them requires skill and practice and, once the gloves have been applied, the hands should not touch any non-sterile items.

**Box 3 Typical contents of pre-packed dressing pack**

- Disposable indented tray or gallipots into which fluid can be poured.
- Lint-free gauze swabs.
- Disposable waste bag.
- Paper towel that can be used to create a sterile field.
- Medium-sized sterile gloves.
If contamination happens, the gloves should be discarded and a new pair applied following thorough hand decontamination.

A single-use plastic apron or similar clothing should be worn by the nurse or health care professional during an aseptic procedure to:

- Prevent the practitioner’s clothing from becoming contaminated with pathogenic micro-organisms that may subsequently be transmitted to others.
- Protect the service user from pathogenic micro-organisms that may be transferred from the operator’s clothing.
- Protect against potential contamination with blood or other body fluids.

The area required to place any sterile items or equipment while carrying out an aseptic procedure is traditionally referred to as the ‘sterile field’ but, because of the presence of airborne micro-organisms in the environment, the term ‘aseptic field’ is more appropriate (Rowley et al 2010). Key points to remember about maintaining the integrity of the aseptic field are that:

- Only sterile items should be placed on or introduced to the aseptic field.
- Anything outside the area is considered contaminated.
- Any item that leaves the aseptic field is considered contaminated and should not be returned to it.

Care should be taken that no outer packaging comes into contact with the aseptic field, which should be set up in a way that ensures the operator, whether right or left handed, does not cause contamination by leaning over it inappropriately.

A simple dressing procedure using aseptic technique is based on the above principles. Essentially this will involve:

- Reviewing the service-user’s care plan.
- Explaining the procedure and obtaining consent.
- Gathering necessary equipment and checking this for sterility and expiry dates.
- Decontaminating hands at appropriate points throughout.
- Preparing the client, the operator and the environment.
- Cleaning and dressing the wound using aseptic technique.
- Disposing of waste appropriately.
- Explaining, inviting questions, arranging any follow up and ensuring comfort.
- Completing records and other documentation.

Conclusion

This paper revises the key principles of aseptic technique. Expertise in the skill is increasingly recognised as being integral to all branches of nursing and essential for safe and competent practice (NMC 2007, DH 2008).

Many nurses working with service users in mental health settings will be required to assist with physical care and must be proficient, when appropriate, in the use of aseptic technique when undertaking wound care.

References


