The Prevention and Management of Pressure Ulcers
An educational workbook
Contents

Introduction 2
Module 1  Person-centred care planning 3
Module 2  The structure and function of the skin 4
Module 3  Risk factors and risk assessment 7
Module 4  Inspection and care of the skin 11
Module 5  Prevention and management techniques 14
Module 6  Grading of skin damage 17
Module 7  Phases of wound healing and fundamental wound management 22
Module 8  Infection control and prevention 28
And finally... 31
Answers 32
Introduction

Welcome to this programme on the prevention and management of pressure ulcers. The aim of the programme is to help you understand pressure ulcers – how they form, how they are treated and, crucially, how they can be prevented.

This workbook is designed for you to record your answers to the Learning Activities which appear throughout the programme. You will be directed to use this workbook whenever a Learning Activity appears in your Reference book. There are also multiple choice questions for each module in the workbook. Please complete these at the end of each module as indicated in the Reference book.

This workbook is for your personal use only. You should download and print out a copy now, if you have not already done so. Keep it in a safe but handy place for times when you need to work through it. You will also need to share your answers and thoughts with a mentor once you have identified one, usually a senior colleague in your place of work.

Please take the time now to fill in the details below before you begin.

You and your role

Name: .................................................................
Organisation: ..........................................................
Department: ..........................................................
Name and position of Mentor: ..................................
Date Workbook commenced: ..................................

Your role

Use the space below to describe the main duties of your job.
Module 1
Person-centred care planning

Module 1: Multiple choice questions

Please tick one correct answer

1. Which members of the health and social care team are responsible for pressure ulcer prevention and care?
   - ☐ a) Registered nurses
   - ☐ b) Doctors
   - ☐ c) The entire health and social care team
   - ☐ d) Professionals and support workers

2. What are the four key parts of the nursing process?
   - ☐ a) Assessment, planning, implementation and evaluation
   - ☐ b) Assessment, discussion, planning and implementation
   - ☐ c) Planning, implementation, evaluation and audit
   - ☐ d) Consultation, planning, implementation and evaluation

3. Which of these activities of daily living could be included in a person-centred care plan?
   - ☐ a) Breathing, sleeping and continence
   - ☐ b) Spiritual care, mobilising and personal hygiene
   - ☐ c) Expressing sexuality, socialising and dying
   - ☐ d) All of the above
   - ☐ e) A & B

4. Evaluation of care is important as it indicates whether the care you have provided is working
   - ☐ a) True
   - ☐ b) False

You can compare your answers to the answers at the end of this workbook.
Module 2
The structure and functions of the skin

Module 2: Learning Activity 1

Use the list below to label the skin appendages in the diagram.

Dermis
Fat layer
Epidermis
Sweat gland
Blood vessels
Sebaceous glands
Melanocytes
Nerve
Stratum corneum
Capillaries
Hair
Hair follicle

You can compare your diagram with ours on page 15 of the Reference book.
Module 2: Learning Activity 2

Can you list the key functions of the skin?

Can you think of three examples of how the skin may become damaged?

Our skin changes as we age. Consider how an older person’s skin will differ from that of a younger person.

You can note your examples in the space below.

You may wish to compare your thoughts with the information provided earlier in Module 2 of the Reference book.
Module 2: Multiple choice questions

Please tick one correct answer

1. The outer layer of the skin is called:
   □ a) dermis
   □ b) the epidermis
   □ c) the fatty layer
   □ d) the sub dermis

2. Which of the following groups of people are likely to have vulnerable skin.
   □ a) pre-term infants, children and older people
   □ b) pre-term infants, neonatal and older people
   □ c) pre-term infants and older people
   □ d) pre-term infants, neonatal and children

3. The skin acts as a protective barrier.
   Which of the following does it protect our body from?
   □ a) trauma
   □ b) pressure
   □ c) certain bacteria
   □ d) all of the above

4. The nerve endings in our body help our skin detect:
   □ a) pain, touch, pressure, loss of fluid
   □ b) pain, touch, pressure, skin damage
   □ c) pain, changes in temperature, touch, pressure
   □ d) pain, touch, pressure, infection

You can compare your answers to the answers at the end of this workbook.
Module 3
Risk factors and risk assessment

Module 3: Learning Activity 1
Think of a patient/client in your care with reduced mobility.
List the risk factors for that individual.

Module 3: Learning Activity 2
Can you identify the person responsible for nutrition in your area?
Discuss with him or her how a patient’s/client’s nutritional status is assessed.

Make notes of your findings below.
Module 3: Learning Activity 3

When you are taking a break, make a mental note of the number of times you move in the seat (reposition yourself) over a half-hour period. You are likely to move several times.

Now think about a patient/client with reduced mobility. How often do you help someone you are caring for to reposition? Now share your thoughts with a colleague and discuss the importance of repositioning.

Use the space below to make notes.

Module 3: Learning Activity 4

Look at the pressure ulcer risk assessment tool used in your area with a member of the health care team who is familiar with it. Does lower or higher score indicate increased risk? Think of a patient/client in your care. How will the score influence care planning? Discuss with a colleague.

You may wish to make notes below.
Module 3: Learning Activity 5. Care study

Robert is a 68-year-old man who had a stroke six years ago. He lives at home with his wife, who is his main carer. Robert can walk with a stick. He generally keeps well, but has become bedbound after a short illness. Pressure ulcer risk assessment had been carried out on a monthly basis, but as Robert is currently unwell, he may be at increased risk of developing a pressure ulcer.

Look at the pressure ulcer risk assessment tool used in your area. What risk factors may have increased for Robert? Should we increase the frequency of risk assessment? Discuss with a colleague. You may wish to record your thoughts in the space below.

You can compare your thoughts with those listed in the answers at the end of this workbook.
Module 3: Multiple choice questions

Please tick one correct answer

1. Which of the following groups would be vulnerable to pressure ulcers?
   - a) Those at the extremes of age
   - b) Those at the extremes of weight
   - c) Those with normal mobility
   - d) All of the above
   - e) A & B

2. Which of the following could contribute to the formation of pressure ulcers?
   - a) Lack of stimulation in the hospital environment
   - b) Infected wounds
   - c) Shear and/or moisture
   - d) Poor lighting

3. If skin is exposed to high levels of moisture, what can occur?
   - a) Pressure ulcer
   - b) Dehydration
   - c) Excoriation
   - d) A & C

4. Which patients/clients should be given a risk assessment?
   - a) Those with poor mobility
   - b) Those with personal hygiene issues
   - c) All patients/clients
   - d) Those with cognitive impairment

You can compare your answers to the answers at the end of this workbook.
Module 4
Inspection and care of the skin

Module 4: Learning Activity 1

Why is incontinence an important consideration in skin breakdown?
To check your response, revisit the section on moisture in Module 3 of your Reference book.

You may wish to record your thoughts in the space below.

Module 4: Learning Activity 2. Care study

Mrs Miller is a 74-year-old lady who has been admitted to a medical ward. She has a high temperature, feels pain when she passes urine and generally feels unwell. She also confides that she “hasn’t managed to get to the toilet in time” on a few occasions recently. She is normally fairly active and takes part in activities in her local community, including gentle fitness sessions.

How would you carry out a skin inspection? What factors in particular do you have to consider when inspecting Mrs Miller’s skin? Identify potential risks to her skin. What measures can be taken to minimise potential skin damage? Make notes below and discuss your thoughts with a colleague.
Module 4: Learning Activity 3

Look at the excoriation tool in your area with someone who is familiar with it.
Can you name the type of damage in the photograph on page 36 of the Reference book?
How would you treat this person’s skin?
Which barrier products are available to you?

Please note your answers below.

You can compare your thoughts with those listed in the answers at the end of this workbook.
Module 4: Multiple choice questions

Please tick one correct answer

1. What are the early identifiers of a potential pressure ulcer?
   a) Localised pain/itching
   b) An area of redness which doesn’t blanch when pressure is applied
   c) A pus-filled swelling beneath the skin
   d) An area of excoriated skin

2. It is important to record and report skin damage as it can prevent further deterioration
   a) True
   b) False

3. How can patient/client dignity be ensured during assessment?
   a) Ensure that your hands are warm
   b) Talk to your colleagues throughout the assessment
   c) Carry out the assessment as quickly as possible
   d) Ensure that the room is warm, adequately lit, and only expose the necessary areas of skin

4. What products are appropriate for cleansing vulnerable skin?
   a) Gentle soap and warm water
   b) Warm water only
   c) A dry flannel
   d) A pH-balanced skin cleanser

You can compare your answers to the answers at the end of this workbook
Module 5
Prevention and management techniques

Module 5: Learning Activity 1

Do you have a repositioning chart in your area?
You may wish to discuss this with a member of the health care team who is familiar with it.

You can note your findings in the space below.

Module 5: Learning Activity 2

Can you list the reasons why it is important to remove these aids?
Module 5: Learning Activity 3

Find out which pressure-redistributing products are available in your area from a senior member of the health care team who is responsible for their allocation.

List the products below.

Module 5: Learning Activity 4

Can you identify the person responsible for cleanliness of equipment in your area? Discuss the procedure for maintenance and decontamination of equipment in your area with him or her.

You may wish to record your findings below.

You can compare your answers with those given at the end of this workbook.
Module 5: Multiple choice questions

Please tick one correct answer

1. Which techniques and equipment are key in redistributing pressure?
   □ a) Massage
   □ b) Specialist mattresses, beds and cushions
   □ c) Repositioning
   □ d) All of the above
   □ e) B & C

2. Repositioning of someone at risk of developing a pressure ulcer is only undertaken while they are in bed
   □ a) True
   □ b) False

3. Why would you use an electric profiling bed?
   □ a) To assist pressure distribution
   □ b) To allow easy access to catheter bags
   □ c) To ensure that it doesn’t fall into disrepair through lack of use
   □ d) To help with repositioning
   □ e) To assist pressure distribution and to help with repositioning

4. How would you ensure proper maintenance and decontamination of pressure-reducing equipment?
   □ a) Consult a member of your team
   □ b) Consult domestic services
   □ c) Read the instruction manual provided
   □ d) Use regularly

You can compare your answers to the answers at the end of this workbook.
Module 6
Grading of skin damage

Module 6: Learning Activity 1


Have you cared for individuals who are incontinent of urine, faeces, or both?

If yes, what changes in their skin condition have you noted?

You may have noticed that patients' clients' skin is fiery and red in appearance. There may be small breaks in the skin or ulcers may be present. The skin may also be very moist due to the damage caused by urine or faeces. Pain may be experienced by the patient/client, but not in all cases.

Module 6: Learning Activity 2

Study the grading tool and familiarise yourself with the depth of tissue damage present in each grade of sore.

Using the excoriation tool and the grading tool, observe the wounds on the next three pages and decide on whether they are the result of excoriation (moisture damage) or pressure. Remember you can access these from the online toolkit at:

[www.healthcareimprovementscotland.org/our_work/patient_safety/tissue_viability.aspx](http://www.healthcareimprovementscotland.org/our_work/patient_safety/tissue_viability.aspx)

You can match your answers to ours on page 35 of this workbook.
Module 6: Learning Activity 2  Image 1

What type of skin damage is present in image 1?
Refer to page 48 of the Reference book for a full colour version of this image.

What grade of pressure ulcer or type of excoriation is present in image 1?

List four things you would do to provide the best care for this patient/client – you might want to have a look at the care plan in Module 1 of the Reference book.
Module 6: Learning Activity 2  Image 2

What type of skin damage is present in image 2?
Refer to page 47 of the Reference book for a full colour version of this image.

What grade of ulcer or level of excoriation is present in image 2?

What four things could you do for this patient/client to improve his or her care?

What type of dressing would you choose for this patient/client and why?
Module 6: Learning Activity 2  *Image 3*

What type of skin damage is present in image 3?
Refer to page 49 of the Reference book for a full colour version of this image.

Which grade of tissue damage or level of excoriation is present in image 3?

What four things could you do for this patient/client to improve his or her care?

What type of dressing would you choose for this patient/client and why?
Module 6: Multiple choice questions

Please tick one correct answer

1. In the earlier stages, how will pressure damage appear?
   □ a) The skin will be covered in sores
   □ b) Rash-like
   □ c) Oozing with pus and/or serous fluid
   □ d) Non-blanching erythema

2. Grade 3 pressure damage would include:
   □ a) Non-blanchable patches of redness
   □ b) Damage to muscle, bone or supporting structures
   □ c) Full-thickness skin loss
   □ d) Partial-thickness skin loss

3. When does moisture damage occur?
   □ a) After prolonged exposure to urine/faeces
   □ b) After prolonged submersion in water
   □ c) After exposure to strong soaps and/or deodorants
   □ d) After lying in one position for more than three hours

4. Superficial skin damage presents as:
   □ a) An abrasion or blister
   □ b) Necrosis of subcutaneous tissue
   □ c) Oedema
   □ d) All of the above
   □ e) A & C

You can compare your answers to the answers at the end of this workbook.
Module 7
Phases of wound healing and fundamental wound management

Module 7: Learning Activity 1

Consider patients/clients with wounds in your care setting. What treatment are they receiving?

What changes in the tissue did you see when the wound was healing?
Module 7: Learning Activity 2

What are the stages or phases of wound healing?

Now return to the pages on wound healing in Module 7 of the Reference book and check your answers.

Module 7: Learning Activity 3

Consider some of the individuals you care for with wounds. What other illnesses do they have? List them below.

Which factors do you feel are most likely to affect healing and why?
You may want to discuss this with a colleague.
Module 7: Learning Activity 4

George is admitted to your care setting with a pressure ulcer on his sacrum. He is not eating well, has recently lost weight and is unable to change his position in bed.

The pressure ulcer looks like this. Please refer to page 63 of the Reference book to see a colour picture of George’s wound.

What would you do to help care for George? List your thoughts below.
Module 7: Learning Activity 4  (continued)

What types of tissue can you see in the wound?  
Tick below:

☐ Granulation  ☐ Slough  ☐ Necrotic tissue

The wound is leaking moderate amounts of fluid. Which dressing might be applied to help absorb this fluid?  
Tick below:

☐ Alginate  ☐ Algin with foam  
☐ Hydrofiber  ☐ Hydrofiber with foam
☐ Hydrogel  ☐ Hydrogel with foam
☐ Hydrocolloid

You may wish to compare your responses with ours on page 35 of this workbook.
## Module 7: Learning Activity 5

Choose an individual you are caring for who has a wound.

### What type of tissue is in his or her wound?

| What type of tissue is in his or her wound? |

| |

### Which dressings have been applied to the wound?

| Which dressings have been applied to the wound? |

| |

### Have the dressings helped?

Have the dressings helped?

What other care is he or she having that may make a difference to healing?

| Have the dressings helped? What other care is he or she having that may make a difference to healing? |

| | |
Module 7: Multiple choice questions

Please tick one correct answer

1. How long does the inflammatory phase of wound healing last?
   - a) 12-48 hours
   - b) Approximately one week
   - c) 3-5 days
   - d) No more than 24 hours

2. Which of the following factors can affect healing?
   - a) Age and nutritional status
   - b) Psychological influences
   - c) Mechanical stress and social support
   - d) All of the above
   - e) A & C

3. A wound assessment should include:
   - a) The patient’s/client’s home environment
   - b) The patient’s/client’s history
   - c) The size of the wound
   - d) The patient’s/client’s history and the size of the wound

4. When should hydrocolloid dressings be used?
   - a) Only for Muslim or Jewish patient’s/client’s
   - b) To reduce odour
   - c) For low- to medium-exuding wounds
   - d) For wounds with dry necrotic tissue

You can compare your answers to the answers at the end of this workbook.
Module 8
Prevention and control of infection

Module 8: Learning Activity 1

Can you recall the six links in the chain of infection?

Write these down below and give a brief description of each.

1. 
2. 
3. 
4. 
5. 
6. 

Now return to the first part of this module in the Reference book, *Chain of Infection*, and check your answers.
Module 8: Learning Activity 2

There are ten Standard Infection Control Precautions in the National Infection Prevention and Control Manual.

Please attempt to list these in the space below.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 

You can check your answers by turning to the first section of Module 8 in the Reference book *How can we prevent the spread of bacteria?*

Can you give reasons why these should be used by all involved in the care of all patients/clients all of the time?

Note your thoughts below.
Module 8: Learning Activity 3

Take time to find the infection control policies in your own workplace. These are designed to guide all staff in the prevention and control of infection.

Module 8: Learning Activity 4

List five key measures which will prevent a pressure ulcer becoming infected.

1. ..........................................................................................................................
2. ..........................................................................................................................
3. ..........................................................................................................................
4. ..........................................................................................................................
5. ..........................................................................................................................

You can check your list with ours in the 'Reducing the risk of infection' section of Module 8 in the Reference book.

Module 8: Learning Activity 5

List five changes you may see in an infected ulcer.

1. ..........................................................................................................................
2. ..........................................................................................................................
3. ..........................................................................................................................
4. ..........................................................................................................................
5. ..........................................................................................................................

You may want to check your answers with the list found earlier in Module 8 of the Reference book, *Signs of infection in a pressure ulcer*. 

Module 8: Multiple choice questions

Please tick one correct answer

1. ‘The presence of bacteria in a pressure ulcer does not necessarily mean that an infection is present.’
   Is this statement true or false?
   - a) True
   - b) False

2. Standard infection control precautions are designed to
   - a) prevent the spread of infection in the acute hospital setting
   - b) reduce the chances of spreading infection from one person to another
   - c) reduce the spread of infection with patient who have known infections only
   - d) increase the chances of spreading infection

3. From the list below which is NOT a sign of local infection in a pressure ulcer
   - a) Redness to the ulcer edges
   - b) Swelling
   - c) Pain
   - d) High temperature

4. For an infection to occur a sequence of events occurs called the ‘Chain of Infection’. What link in the change of infection is broken when transmission-based precautions are undertaken?
   - a) The reservoir
   - b) Portal of entry
   - c) Portal of exit
   - d) The mode of transmission

You can compare your answers to the answers at the end of this workbook.

And finally...

You have now completed The Prevention and Management of Pressure Ulcers: an educational workbook. Well done!

You may now find it useful to revisit the learning outcomes for the programme and reflect on what you have achieved by working through the workbook.

You will find the workbook useful for future reference. You may also wish to keep it in your professional development portfolio as it will help you demonstrate your learning and your commitment to providing quality care.
Answers

Answers to Module 1: Multiple choice questions
1 correct answer is c
2 correct answer is a
3 correct answer is d
4 correct answer is b

Answers to Module 2: Multiple choice questions
1 correct answer is b
2 correct answer is b
3 correct answer is d
4 correct answer is c

Answers to Module 3: Learning Activity 3
You may have thought of:
• the patient/client may be unable to reposition him or herself
• he or she may have a reduced appetite, which could lead to poor nutritional status
• an inability to get to the toilet on time may lead to continence problems
• apathy may further reduce mobility.

Answer to Module 3: Learning Activity 4
You may have thought of:
• reduced mobility
• reduced activity
• possible reduced nourishment due to being unwell
• incontinence
• previous stroke.

You may also have decided that the frequency of risk assessment should be increased.

Answers to Module 3: Multiple choice questions
1 correct answer is e
2 correct answer is c
3 correct answer is d
4 correct answer is c
Answers to Module 4: Learning Activity 2

You may have thought of:
• asking the patient’s/client’s permission to carry out the inspection
• ensuring privacy and a warm environment
• maintaining the dignity of the patient/client by only exposing the area of skin you need to examine.

Risks in this patient/client case may include reduced mobility and excoriation of the skin from urine.

Measures that can be taken to minimise damage may include positioning the patient’s/client’s bed as near to a toilet as possible, making sure she has cleansing materials available and, if necessary, assisting with cleansing. You could also consider the use of barrier creams.

Answers to Module 4: Multiple choice questions
1 correct answer is b
2 correct answer is b
3 correct answer is d
4 correct answer is d

Answers to Module 5: Learning Activity 2

You may have thought of the following:
• For infection control purposes.
• Creases or stitch lines in the fabric may lead to skin damage.
• The patient/client is not in direct contact with the pressure-redistributing surface.

Answers to Module 5: Multiple choice questions
1 correct answer is e
2 correct answer is b
3 correct answer is a
4 correct answer is c
Suggested responses to Module 6: Learning Activity 2  Image 1

‘What type of skin damage is present here?’
This damage is due to pressure.

‘What grade of ulcer or level of excoriation is present?’
This is a Grade 4 pressure ulcer.

‘What four things could you do for this patient to improve his or her care?’
Care issues may include:
• regular repositioning
• carrying out regular skin inspection and risk assessment
• using a wound dressing to help remove the sloughy tissue and absorb wound fluid
• making sure the patient/client is eating and drinking well
• using a pressure-redistributing mattress or overlay
• spending time discussing care with the patient/client and his or her carers.

Suggested responses to Module 6: Learning Activity 2  Image 2

‘What type of skin damage is present here?’
The damage is caused by pressure, shearing and friction.

‘What grade of ulcer or level of excoriation is present?’
This is a Grade 3 pressure ulcer of the heel.

‘What four things could you do for this patient/client to improve his or her care?’
Care issues may include:
• trying to reduce pressure by repositioning the patient/client and using aids such as repose boots to relieve pressure on the heel
• giving the patient/client support with eating and drinking
• reassessing the wound on a regular basis
• encouraging mobility
• involving family members where possible.

‘What type of dressing would you choose for this patient/client and why?’
You may consider applying an absorbent dressing on the wound to absorb wound fluid and using a dressing that is occlusive to reduce the risk of infection.
Suggested responses to Module 6: Learning Activity 2  Image 3

‘What type of skin damage is present here?’
This damage is due to pressure, shearing and friction.

‘Which grade of tissue damage or level of excoriation is present?’
This is a Grade 4 pressure ulcer.

‘What four things could you do for this patient/client to improve his or her care?’
Care issues may include:
• using pressure-relieving heel supports
• providing a pressure-redistributing mattress
• encouraging fluids and food
• using an occlusive dressing to prevent cross infection.

‘What type of dressing would you choose for this patient/client and why?’
You may consider applying a dressing to help soften the necrotic tissue, requesting that an expert remove the dead tissue, and using a dressing that can help to reduce the odour from the wound.

Answers to Module 6: Multiple choice questions
1 correct answer is d
2 correct answer is c
3 correct answer is a
4 correct answer is a

Suggested responses Module 7: Learning Activity 4
You may have considered the following responses:

‘What would you do to help care for this patient/client?’
• He should have his skin inspected and will need risk assessment.
• He would require regular repositioning to help reduce pressure (two-hourly, although this may be difficult to maintain in the community, particularly if the patient’s/client’s carers are unwilling or unable to contribute).
• He may need a pressure-redistributing mattress or overlay to help reduce pressure.
• He may also need help to eat and drink and may need to be seen by the dietitian.
• The pressure ulcer may need an absorbent dressing which can help debride the wound bed.
• Help put him at ease by spending time discussing his care with him and his relatives.

‘What type of tissue can you see in the wound?’
This wound has a combination of granulation, slough and necrotic tissue present.

‘Which dressing might be applied to help absorb this fluid?’
An alginate dressing or a hydrofiber dressing with a secondary foam dressing may be appropriate in this situation.
Answers to Module 7: Multiple choice questions
1 correct answer is c
2 correct answer is d
3 correct answer is d
4 correct answer is c

Answers to Module 8: Multiple choice questions
1 correct answer is a
2 correct answer is a
3 correct answer is d
4 correct answer is c

Additional Notes

Please use the space below to make any additional notes.
This resource may be made available, in full or summary form, in alternative formats and community languages. Please contact us on 0131 656 3200 or email altformats@nes.scot.nhs.uk to discuss how we can best meet your requirements.