

# Antimicrobial wound dressings for chronic wounds

Information for patients, their families and carers



From our health technology assessment report

**Healthcare Improvement Scotland is a national organisation that helps to drive improvements in the quality of healthcare people receive. One way we do this is by giving advice on whether healthcare technologies – like devices or clinical procedures – work and are good value for money. We carry out a health technology assessment to produce this type of advice.**

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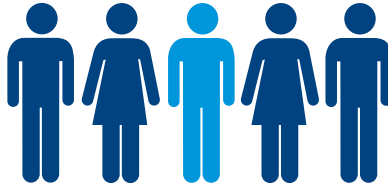
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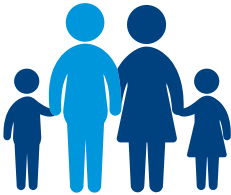
# Who is this booklet for?

This booklet is for you if:

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you have a chronic wound



you have a family member or friend who has a chronic wound



you care for someone with a chronic wound

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## This booklet covers:

- what a chronic wound is (like leg ulcers, pressure ulcers and foot ulcers)
- what the different types of chronic wounds are
- what an antimicrobial wound dressing is and how it should be used
- what the patients we spoke with told us, and
- how well antimicrobial wound dressings work.

We have produced this patient booklet to explain the recommendations from our health technology assessment report about the use of antimicrobial wound dressings in chronic wounds.



### **What is a health technology?**

Any type of intervention that tries to improve people’s health. This might be a medicine, a device like a thermometer, or a clinical procedure like surgery.

### **What is a health technology assessment?**

This is a recognised process that brings together evidence from different areas to provide advice to healthcare decision makers. We look at whether a technology works, is safe and offers value for money. We gather patient views and look at how care is delivered in Scotland.

You can access the full health technology assessment report *Antimicrobial wound dressings (AWDs) for chronic wounds: Health technology assessment report 13* on the Healthcare Improvement Scotland website:  
**[www.healthcareimprovementscotland.org](http://www.healthcareimprovementscotland.org)**

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### **What this booklet does not cover**

**It does not provide information on other types of treatment for chronic wounds.** This is because the health technology assessment looked only at antimicrobial wound dressings. Some information is provided on the most common types of chronic wounds. Detailed information on chronic wounds or the health problems that may cause them is not provided. Please see page 22 for details of other organisations that may provide more information and support.

# What is a chronic wound?

**Skin protects your body from germs and the outside environment. When skin is broken, blood vessels beneath the skin can break and tissue may or may not be exposed. This is called a wound. Wounds can be acute (short lasting) or chronic (long lasting).**

**Healing of a wound usually involves a number of steps.**

- 1.** A special type of blood cell called a platelet works like a plug to keep blood and other fluids from leaking out.
- 2.** Another type of blood cell called a white blood cell attacks any germs that may have entered the wound.
- 3.** Damaged blood vessels begin to repair and strong fibrous tissue forms.
- 4.** The fibrous tissue binds the damaged tissue and pulls it back together.

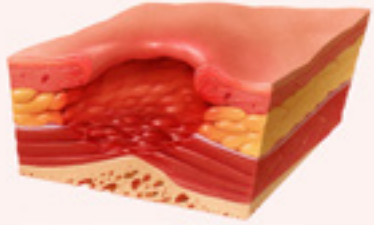
**Sometimes a wound does not progress through these steps and in the expected amount of time for that type of wound.**

Any wound can get stuck at one of these steps. A wound that does not heal in the expected timeframe is called a **chronic wound**.

One rule of thumb suggests that if an acute wound does not heal within three months it has become a chronic wound, but every patient and every wound is different.



A wound



### What is fibrous tissue?

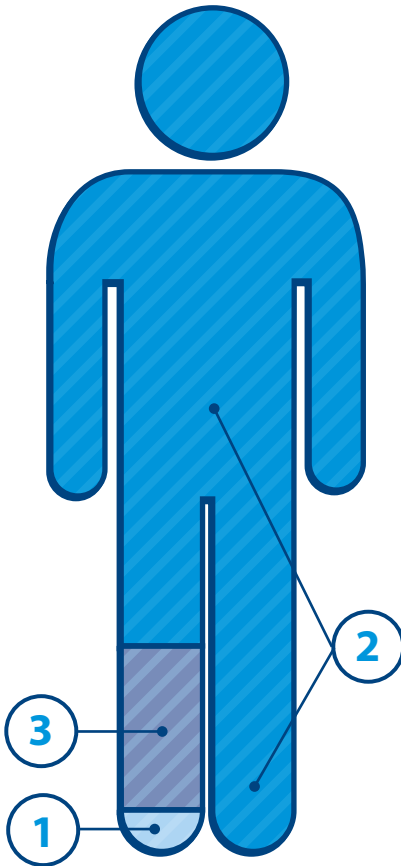
Human body tissue is what makes up our organs and other parts of the body. Fibrous tissue is a strong and slightly stretchy tissue. Scars are formed from fibrous tissue and are part of normal healing.



## Types of chronic wounds

The three most common types of chronic wounds are:

- 1 **foot ulcers in people with diabetes**
- 2 **pressure ulcers (also known as bed sores)**
- 3 **leg ulcers.**



Pressure ulcers can occur on different parts of the body

### Why is it important to get treatment for a chronic wound?

A chronic wound may not heal without treatment. It can also get infected and make you unwell. So if you have a wound that is taking a long time to heal, let your GP or any healthcare professional know.





1

### **Foot ulcers in people with diabetes**

A foot ulcer is an open sore that occurs where skin has broken down. People with diabetes who have high or uncontrolled blood sugar levels are more likely to develop foot ulcers. This is because nerve damage can cause reduced feeling in the feet. Healing is also slower due to reduced blood supply to the feet.

2

### **Pressure ulcers**

This type of wound is caused by pressure being placed on a part of the body, often the tailbone, heels or ankles. The pressure affects the blood supply to the area of skin. The constant pressure damages the skin, and moisture and rubbing make this worse. These wounds are more common among people who are less mobile or need to stay in bed.

3

### **Leg ulcers**

There are two main types of leg ulcers. These are caused by either problems with veins (venous leg ulcers) or arteries (arterial leg ulcers). They occur when there is a break in the skin on the lower leg. They are more common among older people. Healing is difficult because blood does not move around the body easily due to a health problem. Two common health problems are:

- a build up of fatty deposits inside the blood vessels
- the valves in the blood vessels of the leg do not work properly.

# What is an antimicrobial wound dressing?

**Antimicrobials are chemicals that kill germs or stop their spread. Examples of antimicrobials used in wound dressings are silver, iodine and honey.**



In our health technology assessment report, we described an antimicrobial wound dressing as either:

- a germ-free pad or compress (known as a dressing) that is soaked in an antimicrobial and placed securely over a wound, or
- a layer of antimicrobial cream, ointment or powder applied directly to the wound over which a dressing is placed.

Dressings can be made of many different types of materials such as gauze, gels or foam.

Antimicrobial wound dressings work in a number of different ways. They can:

- lower the number of germs in a wound,
- keep the wound moist, and
- remove extra fluid from a wound.

# What we did



**1**

Identified questions



**2**

Searched for evidence and information



**3**

Talked to patients and healthcare staff



**4**

Looked at the evidence and information



**5**

Made judgements and recommendations



**6**

Published our report



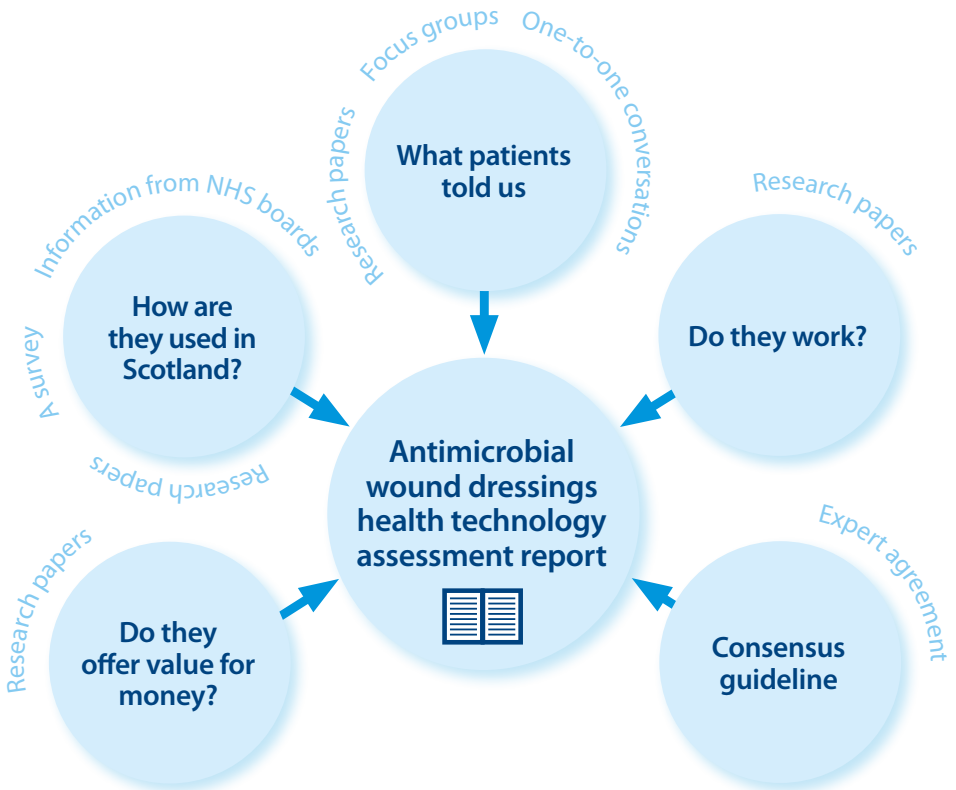
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Let everybody know about our recommendations

## Our report looked for answers to the following questions:

- How are antimicrobial dressings being used in Scotland?
- Do antimicrobial dressings treat an infection and heal chronic wounds?
- What things matter to patients with chronic wounds?
- Do antimicrobial dressings offer value for money?

## We used different types of evidence and information to answer these questions.



# How are antimicrobial wound dressings used?

**Antimicrobial wound dressings are being used widely across Scotland.**

There are differences in:

- the way antimicrobial wound dressings are being used to treat chronic wounds when there is an infection,
- rules for starting and stopping antimicrobial wound dressings, and
- the types of antimicrobial wound dressings available for healthcare professionals to use.



# Do antimicrobial wound dressings work?



**Not enough research evidence**

## To treat an infection of a chronic wound

There is not enough good quality research evidence to be sure whether antimicrobial wound dressings work for treating infections in a chronic wound.



**Not enough research evidence**

## To heal a chronic wound

There is not enough good quality research evidence to be sure whether antimicrobial wound dressings heal a chronic wound. They may not work very well.



### What is 'research evidence' in healthcare

Research evidence is the best available information to answer a question. It is often made up of the results of published research studies.

**Recommendation**  
based on the  
research evidence



- Antimicrobial wound dressings should **not** be routinely used to try and heal a chronic wound.
- More research should be done to find out if antimicrobial wound dressings help to treat infections and heal chronic wounds.
- New research should look at how different dressings affect things like pain and leakage as well as healing and infection.

**What does this recommendation mean for you?**

This recommendation means that antimicrobial wound dressings might still be the right treatment for your wound but they are not suitable for regular use in all chronic wounds.

# How should antimicrobial wound dressings be used?

Because there is not enough good quality research evidence on antimicrobial wound dressings, we got experts in wound care to agree on when and how they should be used (this process is called consensus).

**Recommendation**  
based on  
expert agreement



**An antimicrobial wound dressing can be used when there are signs and symptoms of an infection in a wound.**

Signs and symptoms that might suggest an infection in the wound are:

- pain or pain that is worsening,
- redness around the wound,
- the wound is hot,
- the wound is getting bigger,
- fluid coming out of the wound that is thick, smelly or both,
- more fluid leaking than before from the wound,
- swelling,
- healing has stopped, or
- the wound has a bad smell.





## How did experts agree on evidence?

We asked experts in wound care if they agreed on a set of statements about antimicrobial wound dressings. We then made changes to the statements, based on what they said. We sent them the new statements and each other's answers and reasons. We did this three times to reach consensus (agreement). Consensus was reached when seven of the ten experts strongly agreed or agreed with a statement.

### Recommendation

based on  
expert agreement



### Your healthcare professional should check the use of an antimicrobial wound dressing after two weeks.

After two weeks:

- the dressing should be stopped if the signs and symptoms of infection are gone
- use of the dressing can continue if the signs and symptoms of infection are still there but have improved, but it should be reviewed every week
- if signs and symptoms of infection have not improved or are worse, your healthcare professional should carry out a review and may decide to stop using or change the type of antimicrobial wound dressing.

Experts could not agree on which type of antimicrobial dressing to use in different types of chronic wounds. Healthcare professionals will use the local NHS guidelines to help them select a dressing.

# What patients told us

- Living with a chronic wound can be difficult and can affect people's lives in lots of different ways.
- The length of time to healing and the chance of the wound coming back can be difficult to manage.
- A chronic wound can affect people physically through symptoms like uncontrolled pain, wound smell and leakage of the wound. This can make it hard to walk and get out of the house.
- It can affect people emotionally because they can't take care of themselves as well as they used to. It may make it hard to do things, like working or exercising. It can make people feel low and worried.
- It can affect people socially because they may not have the energy or be physically able to spend time with friends or family. People may also worry about how others will react to the symptoms of the wound.

I hoped it... the ulcer, would get smaller, you know... and heal. But nothing happened. No matter what they did, nothing happened.

**A focus group participant**

You think 'everybody can smell me'... I used to dread my visitors, and any visitors that was coming up, at first you're 'can he smell anything?' But all he can smell is perfume at the door, because I was like that [mimics squirting a perfume bottle], you know, everywhere!

**A focus group participant**



## How did we gather patients' views?

We did this by talking to a group of patients (a focus group), and talking to patients one-to-one about their experiences of having a chronic wound and using antimicrobial wound dressings. We also looked at research papers. So we tried to answer questions like 'what is it like to have a chronic wound?' and 'What is it like to use an antimicrobial wound dressing?'



## Choosing a wound dressing

People told us that they want a wound dressing that helps to heal their wound. Many people also experience the problems in the diagram below. Talking about the problems that you have with a healthcare professional may help you to choose the best wound dressing together.



- You may find that there is a lot of ‘trial and error’ in finding a wound dressing that suits you and that helps with your wound.
- Some people get frustrated with this, or with their healthcare professional sticking with a wound dressing that they don’t think is working.
- It may help to talk to your healthcare professional about the things that are important to you.

**Recommendation**  
based on the  
research evidence



Healthcare professionals should talk with you about your health and lifestyle and the things about dressings that may be important to you when deciding on a wound dressing.

## Using an antimicrobial wound dressing

- The people we spoke to were mostly positive about antimicrobial wound dressings.
- People felt that they helped with healing and that they may help with symptoms like pain and smell.
- There was no one favourite antimicrobial wound dressing and what worked for one person may not work for another.

But everybody's different.

**A focus group participant**

Aye. Oh aye, we're all different.

**A focus group participant**

It's not like one size fits all.  
It doesn't.

**A focus group participant**



# Do antimicrobial wound dressings offer value for money?



**Not enough  
research evidence**

There is not enough good quality research evidence to be sure whether antimicrobial wound dressings are good value for money compared with dressings that do not contain an antimicrobial.

**Recommendation**  
based on the  
research evidence



Healthcare professionals should think about the patient's symptoms, the nature of the wound, the benefits of different dressings, and their costs when selecting a wound dressing.

# Where can I get more help and information?

## Diabetes UK

Macleod House  
10 Parkway, London NW1 7AA  
Telephone: **0345 123 2399**  
**[www.diabetes.org.uk](http://www.diabetes.org.uk)**

Diabetes UK is a UK charity that provides information, advice and support to help people with diabetes.

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**[my diabetes my way](http://mydiabetesmyway.scot.nhs.uk)**  
**[www.mydiabetesmyway.scot.nhs.uk](http://www.mydiabetesmyway.scot.nhs.uk)**

This is an interactive website to help support people who have diabetes and their family and friends.

## Age UK

Telephone: **0800 169 2081**  
**[www.ageuk.org.uk](http://www.ageuk.org.uk)**

This is a UK charity that provides services to enable and support older people.

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**NHS Inform**  
**[www.nhsinform.co.uk](http://www.nhsinform.co.uk)**

NHS Inform provides quality-assured health information for the public.

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**Carers UK**  
**[www.carersuk.org](http://www.carersuk.org)**

This UK charity provides practical and emotional support for carers.



# Who should I contact about this report?

**If you have any further questions about this health technology assessment and our findings, please contact:**

## **Healthcare Improvement Scotland**

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The Healthcare Environment Inspectorate, the Scottish Health Council, the Scottish Health Technologies Group, the Scottish Intercollegiate Guidelines Network (SIGN) and the Scottish Medicines Consortium are part of our organisation.

