

Understanding our advice ~ *May 2005*

**The provision of alcohol-based products
to improve compliance with hand hygiene**

Purpose of this document

NHS Quality Improvement Scotland (NHS QIS) has issued advice to **NHSScotland** on the use of alcohol gel to improve **hand hygiene** in hospitals.

Alcohol gel is a substance that can be used to clean hands without using water.

We have advised that alcohol gel should be provided in hospitals for all staff who may come into contact with patients, and for hospital visitors, particularly where handwashing facilities are limited. However, alcohol gel should complement, not replace, existing handwashing facilities.

This booklet has been produced to explain our advice on alcohol gel to people who do not have specialist knowledge in this area.

It explains what healthcare associated infections (HAIs) are, what alcohol gel does, how we formed our advice and the evidence we considered.

The full evidence on the use of alcohol gel to improve hand hygiene in hospitals is discussed in detail in our report called *Health Technology Assessment 7: The provision of alcohol-based products to improve compliance with hand hygiene*. Copies of the report are available from NHS QIS and on our website, www.nhshealthquality.org

The words in **bold** are explained in the **Glossary** at the end of this document.



What are healthcare associated infections?

HAIs are infections that are contracted in hospitals or through the provision of healthcare. Tackling these infections is one of the biggest challenges facing healthcare services, both nationally and internationally.

HAIs include infections that can be caused by several different germs. These germs can cause a range of symptoms including diarrhoea, chest infections, wound infections after surgery and blood poisoning.

Germs are more likely to cause infection if they are able to enter the body, such as through wounds, or tubes placed in the body for treatment.

One of the main ways that germs can spread is from one person to another by hand contact. Washing your hands thoroughly is one of the most effective ways of stopping the spread of germs.

Many HAIs only become a problem for people who are vulnerable to infection (for example, the elderly, the very young and those with conditions such as diabetes or kidney disease).

If a patient contracts an HAI, it can complicate treatment of the condition for which they were originally admitted to hospital. It can also cause them further distress, slow their recovery, increase the length of their hospital stay and lead to prolonged or permanent disability.

In most cases, HAIs can be successfully treated with antibiotics. However, there are some strains of bacteria, such as methicillin-resistant *Staphylococcus aureus* (MRSA), that are resistant to antibiotics. Infections from these bacteria are not common but they can be very difficult to treat and are, in some cases, life threatening.

Tackling HAI in Scotland

In Scotland, NHS staff are doing a great deal to reduce HAIs, but not all infections can be prevented.

It is estimated that at least 33,000 patients in Scotland contract one or more HAIs every year.

HAI is a major factor in an estimated 457 deaths and a contributory factor in a further 1,372 each year. HAIs can also lead to delays in discharging patients from hospital, closure of wards and cancelled operations.


The annual cost of HAI to the NHS in Scotland is estimated to be £186 million.

In January 2003, the Scottish Executive set up the HAI Task Force to monitor levels of HAI in Scotland and co-ordinate a national action plan. The HAI Task Force is due to complete its work by December 2005.

In October 2004, NHS QIS reported that although NHSScotland is giving higher priority to tackling HAI, more needs to be done to turn policies into effective practice.

Ensuring that healthcare professionals and hospital visitors have clean hands is vital if the number of HAIs is to be reduced.

Most hospitals currently use a variety of hand-cleaning methods. Soap and water is the most common of these. While using soap and water is still the most effective way of washing hands, alcohol gel is considered to be a good alternative in certain situations, for example, where there are no handwashing facilities on a hospital ward.



Alcohol gel takes less time to use than soap, kills bacteria rapidly and dries quickly.

Unlike soap and water, which has to be applied at a sink, alcohol gel can be used anywhere in a hospital, such as next to a bed. This would give healthcare professionals and visitors more opportunities to wash their hands, thereby reducing the potential for infections to spread.

While soap and water is still required to remove visible dirt, alcohol gel can be effectively used when hands appear to be clean, but still have bacteria on them.

We reviewed studies that show alcohol gel is likely to be good value for money as it is relatively inexpensive, particularly when considered in relation to the high costs associated with managing HAIs.

We found that most Health Boards provide alcohol gel in some form, but it is not routinely made available.

What we have recommended

We have advised that alcohol gel should be made available to all NHSScotland staff who may come into contact with patients and to all hospital visitors, particularly where handwashing facilities are limited.

We have advised that alcohol gel can be used in many clinical circumstances but should not *replace* soap and water for washing hands.

We have also advised that:

- Hospitals should note that providing a variety of measures to improve hand hygiene is more effective than only using one single approach.
- Hospitals should thoroughly test the effectiveness of the measures they put in place to encourage hand cleaning, and publish their findings.



How we formed our advice

We used an internationally recognised process called **Health Technology Assessment** to form our advice. The assessment took account of the medical and economic implications of using alcohol gel to tackle HAI.

It brought together:

scientific evidence (eg journal articles)

+

expertise of health professionals.

We spoke to doctors, nurses, hospital infection control teams, **microbiologists** and **Health Protection Scotland**.

The evidence was recorded in a draft report that we published. Comments received during consultation were published on the web and taken into account in our scientific document, the Health Technology Assessment report.

Evidence used

We use the word ‘evidence’ to include information collected from a variety of sources, and we use different types of evidence to answer different types of questions. For example:

- Clinical effectiveness

How effective is alcohol gel in improving hand hygiene? How does alcohol gel compare with other hand-cleaning methods?

Evidence came from healthcare professionals and studies we reviewed of current hand-cleaning practice in NHSScotland.

- Costs and benefits

What is the cost of treating HAIs in Scotland? What benefits will using alcohol gel bring to hygiene standards in hospitals? What savings can be made by using alcohol gel to tackle HAIs?

Evidence came from healthcare professionals, studies we reviewed about costs and savings, information about clinical effectiveness and journal articles.

- Organisational issues

What are the practical consequences of using alcohol gel? Is alcohol gel safe and what effect can it have on the skin?

Evidence came from a survey we carried out about hand-cleaning arrangements in hospitals and studies we reviewed about the safety and practical aspects of using alcohol gel.



Sources of support and information

Further information about the use of alcohol gel and HAIs is available from Health Protection Scotland (www.hps.scot.nhs.uk), tel 0141 300 1100.

The NHS QIS scientific report, *Health Technology Assessment 7: The provision of alcohol-based products to improve compliance with hand hygiene* is available from NHS QIS or its website, www.nhshealthquality.org

Glossary

Clinical effectiveness	The extent to which specific clinical interventions do what they are intended to do, ie maintain and improve health.
Hand hygiene	Refers to all methods of keeping hands clean.
Health Protection Scotland	A newly formed organisation established under the direction of the Scottish Executive Health Department to strengthen and co-ordinate health protection in Scotland.
Health technology	An intervention used to promote health; prevent, diagnose or treat disease; or provide rehabilitation or long-term care. This includes medicines, devices, clinical procedures and healthcare settings.
Microbiologist	A doctor that specialises in micro-organisms that can cause disease.
NHSScotland	The National Health Service in Scotland

NHS Quality Improvement Scotland (NHS QIS)

Our role is to improve the quality of healthcare in Scotland. We provide clear, authoritative advice on effective clinical practice, set national standards and monitor and publish reports on performance. We also advise on health interventions that are value for money, produce clinical guidelines and support the implementation of clinical governance. To advise on value for money, we must balance how well a treatment works with how much it costs.

Feedback

Understanding our advice aims to explain the work of NHS QIS in a way that everyone can understand. We would warmly welcome feedback on this brochure. For example, have we clearly explained our advice on alcohol gel to improve hand hygiene and do you have any questions about our advice that were not answered here? Please give feedback to Rob MacPhail, Communications Officer, NHS Quality Improvement Scotland, Delta House, 50 West Nile Street, Glasgow G1 2NP, tel. 0141 225 6992, email: rob.macphail@nhshealthquality.org

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