

**Dr Jim Livingstone**  
Director of Safety, Quality and Standards



Department of  
**Health, Social Services  
and Public Safety**

[www.dhsspsni.gov.uk](http://www.dhsspsni.gov.uk)

AN ROINN  
**Sláinte, Seirbhísí Sóisialta  
agus Sábháilteachta Poiblí**

MÁNNYSTRIE O  
**Poustie, Resydènter Heisin  
an Fowk Siccar**

## **Rapid Response Report**

**Subject:**

**Reducing risks of tourniquets left on after finger and toe surgery**

**For action by:**

Chief Executive, HSC Board  
Director of Commissioning, HSC Board  
Chief Executives, HSC Trusts for cascade to:

- *Medical Directors*
- *Directors of Clinical Services*
- *Directors of Nursing*
- *Director of Primary Care*
- *Allied Health Professionals*
- *CSCG leads*

Chief Executive RQIA for cascade to:

- *Independent hospitals and clinics*

General Medical Practitioners  
Chief Executive, NI Ambulance Service

**For Information to:**

- Chief Executive, Public Health Agency
- Director of Public Health, Public Health Agency
- Director of Nursing, Public Health Agency
- Director of Performance Management & Service Improvement, HSC Board
- Assistant Director of Performance Management, HSC Board
- Professor David Woolfson, Head of School of Pharmacy, QUB
- Professor Linda Johnston, Head of Nursing & Midwifery, QUB
- Professor Hugh McKenna, Head of Life & Health Sciences, UU
- Dr Owen Barr, Head of School of Nursing, UU
- Professor Paul McCarron, Head of School of Pharmacy, UU
- Post Graduate Dean, NIMDTA
- Staff Tutor of Nursing, Open University
- Director, Safety Forum
- Lead, NI Medicines Governance Team

**Summary of Contents:**

The purpose of this circular is to highlight the importance of reducing risks of tourniquets left on after finger and toe surgery

**Enquiries:**

Any enquiries about the content of this Circular should be addressed to:

Safety & Quality Unit  
DHSSPS  
Room D2.4  
Castle Buildings  
Stormont  
BELFAST  
BT4 3SQ  
Tel: 028 9052 2239

[qualityandsafety@dhsspsni.gov.uk](mailto:qualityandsafety@dhsspsni.gov.uk)

**Circular Reference: HSC (SQSD) 86/09**

**Date of Issue: 19 January 2010**

**Related documents**

HSS (MD) 18/2009 Safe Surgery Saves Lives  
<http://www.dhsspsni.gov.uk/hss-md-18-2009.pdf>

**Superseded documents**

N/A

**Status of Contents:**

For completion of actions and assurance templates by 19 July 2010

**Implementation:**

Immediate

SQSD material can be accessed on:

<http://www.dhsspsni.gov.uk/index/phealth/sqs.htm>

**Working for a Healthier People**

**Chief Medical Officer Group**



INVESTOR IN PEOPLE

Dear colleagues

**Reducing risks of tourniquets left on after finger and toe surgery**

Digital tourniquets are commonly used to provide a bloodless field in hand and toe surgery. These may be used in operating theatres, emergency departments, GP surgeries and podiatry clinics. If digital tourniquets are accidentally left on, they may cause substantial harm to patients.

The content of the attached circular at Annex A has been reviewed by relevant professional colleagues in the Department and approved for regional dissemination.

I would ask you to bring this to the attention of relevant practitioners and key health and social care staff within your organisation. They should consider the best practice for their setting and take appropriate steps to minimise the risks to patients.

I would also draw your attention to the attached 'assurance template' which is a means of recording the response from the Trusts and Board in circumstances where SQS Circulars require action to be taken by a given date.

Yours sincerely



**Dr J F Livingstone**  
Director, Safety, Quality & Standards

## **REDUCING RISKS OF TOURNIQUETS LEFT ON AFTER FINGER AND TOE SURGERY**

### **Issue**

1. Digital tourniquets are commonly used to provide a bloodless field in hand and toe surgery. These may be used in operating theatres, emergency departments, GP surgeries and podiatry clinics. If digital tourniquets are accidentally left on, they may cause substantial harm to patients.

### **National Context**

2. The National Patient Safety Agency (NPSA) identified 15 serious incidents between August 2005 and November 2009 relating to digital tourniquets being left in place after surgery. Of these, 10 patients needed further surgical treatment and two resulted in amputation. These were reported from operating theatres (nine incidents), emergency departments (four incidents) and primary care (two incidents). Although the number of patients affected is small, the degree of harm is great. All of these cases were preventable.
3. At least six of the incident reports related to surgical gloves (finger or whole) being used as tourniquets. It has become common practice, well documented in the literature, to use surgical gloves as tourniquets (including techniques to reduce risks by using artery clips). However, the Medicines and Healthcare Regulatory Authority (MHRA) reminds us that the use of gloves as tourniquet in any form is beyond the manufacturer's intended purpose. As with any off-label use of medical devices, it poses possible risks to the patients and the potential for litigation against the hospital or healthcare professional.
4. There are currently no national guidelines on the use of digital tourniquets and more research is needed. The NPSA has based its report on the best available evidence to date. Key aspects of safer practice have been identified by clinical experts which are described in NPSA's supporting information. These include robust processes to control and reconcile the number of tourniquets used, ensuring that they are removed at the end of the procedure and using CE marked tourniquets with design features (labels and/or colour) to ensure they are clearly visible at all times.
5. NPSA/2009/RRR007: [Reducing the risks of tourniquets left on after finger and toe surgery](#) is available via this web link.

## **Local Context**

6. In order to highlight the importance of reducing risks of tourniquets left on after finger and toe surgery, all HSC organisations and independent sector organisations where hand and foot surgery are carried out should ensure:
  - Guidelines include the removal of digital tourniquets as part of the swab counting procedure and specify the need to record the length of time a tourniquet is in place.
  - CE marked digital tourniquets which are labelled and/or brightly coloured should be used, in accordance with manufacturers' instructions. **Surgical gloves should not be used as tourniquets.**
  - The WHO Surgical Safety Checklist is reviewed locally to consider adding tourniquet removal at 'Sign Out' stage.
  - The NPSA clinical briefing sheet is used to raise awareness of risks using digital tourniquets and safer practice recommendations ([www.nrls.npsa.nhs.uk/tourniquets](http://www.nrls.npsa.nhs.uk/tourniquets)).
7. NPSA recommends the use of the WHO Surgical Safety Checklist that has been adapted for use in England and Wales. However, I would draw your attention to HSS (MD) 18/2009: Safe Surgery Saves Lives (<http://www.dhsspsni.gov.uk/hss-md-18-2009.pdf>), issued on 13 May 2009, which commends the use of the **unadapted** WHO surgical checklist for use by the HSC. As outlined in this earlier circular, the WHO checklist contains the core set of safety checks which may be added to locally as appropriate. You should therefore consider using the checklist when working with digital tourniquets.

## **Action Required**

8. You will wish to bring the contents of this document to the attention of staff, particularly those involved in governance and risk management within your organisation. Organisations need to be aware of this best practice circular in order to assist in complying with the Quality Standards for Health and Social Care –
  - Criteria 4.3(i) and 5.3.1(a) (the appropriate management of risk);
  - Criterion 5.3.3(f) (implementation of evidence-based practice through guidance, for example, NPSA guidance);
  - Criteria 8.3 (i) (effective communication and information)
9. HSC Trusts should take immediate action to implement this Rapid Response Report as outlined in paragraph 6 above by **19 July 2010**. Trusts should provide assurance on this action to the HSC Board by completing **Section 2** of the

attached template.

10. The HSC Board should complete ***Section 1*** of the attached assurance template and forward to the Department by **16 August 2010**.

**SQS CIRCULARS: ASSURANCE TEMPLATE FOR HSC TRUSTS**

**Circular number: HSC (SQSD) 86/2009 *Reducing risks of tourniquets left on after finger and toe surgery* For Implementation by: 19/07/2010**  
(Section 2 is to be completed by HSCT and forwarded to HSCB for consideration. Section 1 should then be completed by HSCB and forwarded to DHSSPS)

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**SECTION 1:**

To: Director, Safety, Quality & Standards Directorate, DHSSPS

I note the response from the Trust and –

I can confirm that the HSC Board is content the action(s) taken referred to in Section 2 below, complies with the requirements of the above circular.

I can confirm that the HSC Board is monitoring compliance with the above circular and has requested that further action is taken as follows:

I confirm that the Chief Executive and designated senior manager have been advised of this response and are content that it should be submitted to the Department.

Response submitted by: \_\_\_\_\_ (Name & contact details of person submitting response) on behalf of HSC Board. Date: \_\_\_\_\_

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**SECTION 2:**

To: Chief Executive, HSC Board

I can confirm that the required actions set out in the above circular have been implemented in full by the due date.

I can confirm that the actions in the above correspondence have been partially implemented by the due date. Work is ongoing in the following areas:

I can confirm that the organisation has been unable to implement any actions of the above circular for the following reasons:

I confirm that the Chief Executive and designated senior manager have been advised of this response and are content that it should be submitted to the HSC Board.

Response submitted by: \_\_\_\_\_ (Name & contact details of person submitting response) on behalf of \_\_\_\_\_ HSC Trust. Date: \_\_\_\_\_