SCOTTISH EXECUTIVE

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Chief Executives of NHS Boards and Special Health Boards
HR Directors

Copy to:

OH Directors, SOPG, IOSH, OH Nurse Managers Group

Dear Colleague,

SAFER SHARPS DEVICES: AN EVALUATION OF UTILITY IN NHS SCOTLAND

Please find attached the executive summary from the above report, commissioned by The Occupational Health and Safety Strategy Implementation Group (OHSSIG) and authored by Dr Sandy Elder and Miss Caron Patterson, SALUS Occupational Health and Safety Service, NHS Lanarkshire. The Report has been favourably received and should prove useful for NHS Scotland employers when considering which safer sharps devices to purchase for a particular use.

The full Report has been sent to Occupations Health Directors and Nurse Managers and can be seen on the following web site: http://www.show.scot.nhs.uk/psu by going to the 'What We Do' section clicking on the OHSS link and the report is at the bottom of the page.

The Report is issued with a health warning in relation to the conclusion that financial issues should be weighed against the potential reduction in harm. A recent decision against the Scottish Ambulance Service (http://www.scotcourts.gov.uk/opinions/A32403.html) made clear that financial issues alone cannot be a reason not to purchase safer sharps devices. Following the Court of Session decision the Minister has given an undertaking to review the policy for the purchase of safer sharps devices and a small group is expected to be set up shortly.

The letter will be placed on the HD Bulletin.

Yours sincerely,

BILL WELSH

Executive Summary

This study set out to examine the available sharps devices with an engineered safety feature available to the UK market (as at 2002/3). A total of 50 devices were identified in the following categories :

a) Venous blood collection devices(13)
b) Needle and syringe devices for injection (9)
c) Intravenous cannulation devices (8)
d) Capillary blood sampling devices (8)
e) Arterial blood gas collection devices(3)
f) Scalpels (2)
g) Blunt suture needles (2)
h) Theatre devices for disposing of sharps (5)

The epidemiology of sharps injuries in the UK and US is reviewed : UK data suggests a much lower reported injury rate than in the US (12.7 needlesticks/100 beds/year compared to18-26/100 beds/year in US). Needle and syringe devices have traditionally accounted for the highest number of incidents, though the lowest rate of injury by usage. IV cannulae have the highest injury rate by usage. Blood borne virus transmission to healthcare workers appears to be rare in the UK.

Devices were benchtop tested by the investigators and if found acceptable, evaluated by users across a variety of clinical settings and sites. Training by device manufacturers was provided and users were asked to complete and return evaluation forms. Adequate numbers of evaluations were performed for most categories of device, but the needle and syringe device category had poor returns, possibly reflecting a decline in clinical usage for such devices.

The products were generally rated for ease of use, alteration to technique, time to operate, interference with sampling/use, time till staff were comfortable with device use, users evaluation of patient care issues (e.g. pain), device safety, training needs. Users indicated an overall rating and whether they preferred the trial device or their usual device. An overall rating of devices is given in each category.

Hard evidence for injury prevention is lacking for most of the marketed products. All suppliers were approached for evidence their product prevented injuries, but very few provided this. There are some US studies which suggest similar devices are effective in reducing sharps injuries, though relatively few and in some device categories, there is very little or no such published evidence.

The financial implications of purchasing safety devices are considerable : for a sample Trust (Lanarkshire Acute Hospitals – 1541 in patient beds) an estimate of £198 000 per annum is made as the recurrent cost for conversion in all device categories at current prices. A large proportion of this cost (approximately 53%) would be accounted for by cannulation devices. The cost could be reduced by a selective purchasing policy : this could mean opting to replace all blood collection and lancet devices (which are relatively low cost) whilst stocking a proportion of needle and syringe safety devices only for percutaneous use. Small supplies of IV cannulation safety devices could be held in stock in all clinical areas for use in higher risk clinical situations.

A comparison of costs of injuries is presented, based on data from Lanarkshire, and for comparison, a London NHS Trust. At present the argument for complete conversion to safety device use is probably not supportable if considered only in financial terms. Selective introduction of devices would reduce the cost differential.

A survey of Scottish NHS Trusts and suppliers indicated that safety devices are not widely used. The only categories of device in widespread use are lancets and IV connectors. Safety cannulae and syringes have not gained acceptance to any degree. There is some trend to blood collection devices being used more extensively.

Besides the evaluations of individual products, the following general recommendations are made :

1. On the basis of efficacy and cost, NHS Trusts should consider further widespread introduction of safety devices for the categories of lancets, blood collection devices, needleless IV connection systems and sharps disposal pads.

2. In contrast, for the same reasons, limited stocking of syringe devices should be considered, for the sole purpose of percutaneous use. Replacement of all standard syringes and needles is not necessary since some of these will not be used for a percutaneous procedure.

3. In the category of peripheral intravenous cannulation devices, due to the high cost, we cannot make a positive recommendation that all NHS Trusts convert completely to safety cannulae. However, safety devices should be considered for use in clinical settings with a higher proportion of patients with risk factors for BBV carriage (e.g. Infectious disease units) and for use where patients are known to be carriers of BBV. This would mean most clinical areas having small stocks of these devices available for selective use, but the standard IV cannula would remain the main stock item. It is recommended that Trusts consider this approach.

4. The use of blunt suture needles in operative surgery should be reviewed by surgical directorates with a view to maximising their use for appropriate indications.

5. Scalpels with safety features have limited application, partly due to the availability of blade sizes, but should be considered for use where clinically appropriate