

DEVELOPING A BURN-SPECIFIC PERI-OPERATIVE CHECKLIST: VERSION ZERO, A STARTING POINT





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INTRODUCTION

The World Health Organization (WHO) surgical safety checklist is a widely applied tool in surgical practice aimed at identifying potential faults before they can culminate into harm to patients. Its use has led to decrease in peri-operative errors and adverse events and promoted an increase in teamwork and communication in surgery worldwide. However the generic WHO checklist does not take into account certain considerations unique to sub-groups of surgical patients like burns. Burn patients have complex peri-operative requirements including potential use of skin substitutes, specialist equipment, large volumes of blood products and a greater requirement for pre-operative optimisation. Therefore a modified burn-specific checklist may be of value.

AIM: 1)To adapt the generic WHO surgical safety checklist into a burn-specific surgical checklist.

2) To undertake a recruitment exercise to engage as many burns services as possible to develop the concept.

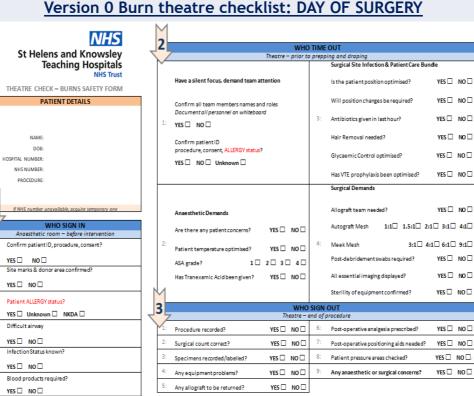
METHODOLOGY

- 1. Initial dialogue between a small number of burns services to develop a proof-of-concept burn-specific checklist.
- 2. Present a 'version zero' burn specific theatre checklist.
- 3. Engage with more burns services with a view to using a modified Delphi methodology to establish a working group to develop a version 1 burn-specific theatre checklist.

Burn-specific parameters over and above the generic checklist include:

SIGN IN: Before induction of anaesthesia

- a. Theatre pre-warming (including checks of overhead heaters)
- b. Confirmation of graft donor site with patient (if awake)
- c. Confirm allograft has arrived



TIME OUT: Before start of surgical intervention

- a. Shaving of graft donor
- b. Patient position and planning for position changes
- c. Allograft preparation
- d. Meek/mesher preparation

YES□ NO□

YES □ NO □

YES□ NO□

YES □ NO □

e. Preparation of Local Anaesthetic/ Adrenaline infiltration

SIGN OUT: Immediately postoperatively

- a. Post-operative positioning & splintage
- b. Post-operative warming
- c. Unused allograft to be returned

Day before surgery

There is potential benefit of starting the checklist the day before surgery. This may facilitate preoptimisation before theatre and streamline logistics such as quantity allograft required, special investigations etc

The checklist on the day before surgery would include:

- Ordering of allograft / skin substitutes
- Cross-matching blood various components
- Discussion of preferred donor sites

YES□ NO□

Version 0 Burn theatre checklist: DAY BEFORE SURGERY FIRST SAFETY CHECK DAY BEFORE OPERATION YES 🗆 NO 🗆 YES 🗆 NO 🗆 YES NO YES □ NO □ YES 🗆 NO 🗆 YES □ NO □ INR < 1.53 7: YES 🗆 NO 🗆 YES □ NO □ Potassium K+ between 4 and 5.5 mmol/L YES D NO N/A D YES 🗆 NO 🗆 YES□ NO□ N/A□ Type of dressing:_____ Is a pre-operative anaesthetic assessment required Is ECG required YES □ NO □ If yes complete 9 - 14 Is the mean arterial pressure > 65 mm/Hg? YES 🗆 NO 🗆 Has euvolaemia been achieved? (CVP, LiDCO, PICCO, Echo to assess fluid management):-NHS

Is the patientstill fit for surgery YES □ NO □ If yes complete 1 - 5
Is the mean arterial pressure still > 65 mm/Hg? Has <u>euvolaemia</u> been achieved? (Consider CVP, <u>LiDCO</u>, PICCO, Echo to assess fluid management):-VES I NO I CVP still greater than 5? (However if PEEP is present, aim for CVP of 5 plus half the value of PEEP):-YES 🗆 NO 🗆 Is urine output still >1ml per/kg? YES 🗆 NO 🗆 IF A NO - GET A SENIOR REVIEW WARD & ICU THEATRE BURNS SAFETY FORM St Helens and Knowslev **Teaching Hospitals**

SECOND SAFETY CHECK DAY 2

2

- d. Investigations and prepatients optimising including theatre an anaesthetic assessment
- e. Pre-operative microbiology discussion and prophylaxis
- f. Operating list order relevant to patient infection status (MRSA/CPE/COVID)
- 3. Arrangement for medical photography
- h. Interpreter requirement for consent /confirmation of capacity

??Others for discussion

CONCLUSIONS

The burn-specific theatre checklist would start the day before surgery and would potentially aid appropriate pre-operative optimisation of patients and streamline care. It has the potential to improve surgical safety, the efficiency of theatre utilisation and time management, reduce the incidence of cross-infection, as well as improve communication.

We are actively seeking to recruit burn professionals from the full spectrum of the burn MDT to participate in a working group that would meet and develop this concept further. Please contact us if you would like to participate! Email Kayvan. Shokrollahi@stl

BURNS SERVICES CURRENTLY RECRUITED: Mid Yorkshire Hospitals NHS Trust, Queen Victoria Hospital NHS Foundation Trust, Nottingham University Hospital NHS Trust