Evaluation of the introduction of a pre-theatre surgical checklist in a regional burn centre

Authors: Varun D. Singh[1,2], Christopher J. Lewis[2]
1. Newcastle University Medical School
2. Northern Regional Burn Centre, Royal Victoria Infirmary

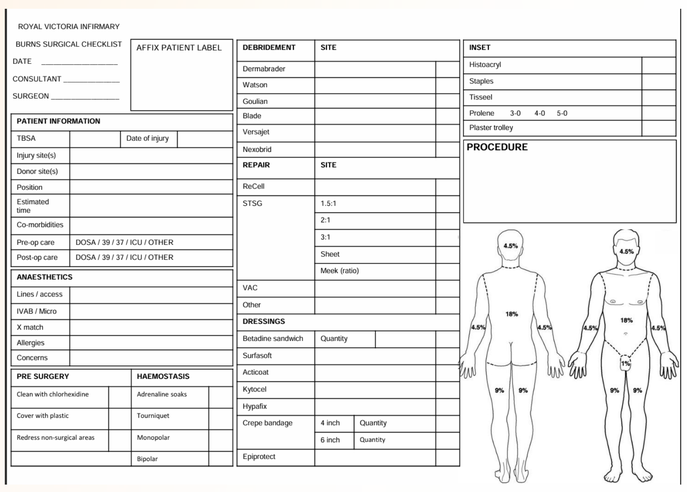
1. Introduction

- Burn surgery requires complex multidisciplinary co-ordination between ward staff, surgeons and theatre teams
- Effective pre-operative communication is important to ensure appropriate theatre preparation, thus minimising delays and supporting safe patient care
- The burn pre-theatre checklist was developed to standardise key pre-surgical information such as patient details, wound care, planned procedure and required equipment. This is mostly not covered by the WHO checklist
- This project aims to formally evaluate the utility of this checklist

2. Aims

1. Evaluate the clarity, relevance and usability of the checklist
2. Assess overall perceived usefulness in clinical practice
3. Gather staff feedback for future improvement

3. The checklist


ROYAL VICTORIA INFIRMARY

BURNS SURGICAL CHECKLIST

DATE _____

CONSULTANT _____

SURGEON _____

AFFIX PATIENT LABEL

PATIENT INFORMATION	
TBSA	Date of injury
Injury site(s)	
Donor site(s)	
Position	
Estimated time	
Co-morbidities	
Pre-op care	DOSA / 39 / 37 / ICU / OTHER
Post-op care	DOSA / 39 / 37 / ICU / OTHER

ANAESTHETICS	
Lines / access	
IVAB / Micro	
X match	
Allergies	
Concerns	

PRE SURGERY		HAEMOSTASIS	
Clean with chlorhexidine		Adrenaline soaks	
Cover with plastic		Tourniquet	
Redress non-surgical areas		Monopolar	
		Bipolar	

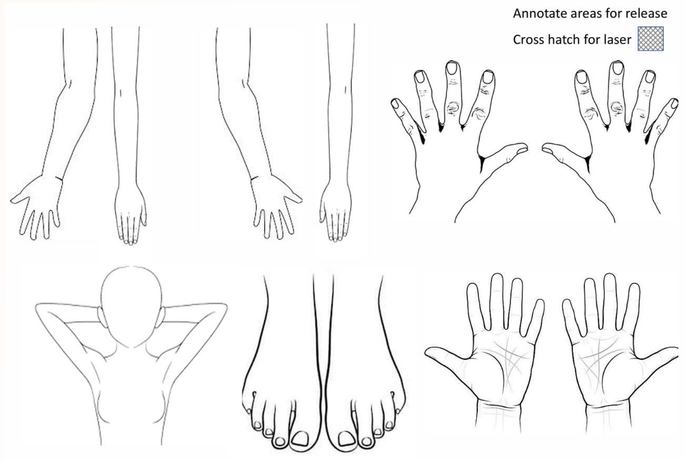
DEBRIDEMENT	SITE
Dermabrader	
Watson	
Goulian	
Blade	
Versajet	
Nexobrid	

REPAIR	SITE	
ReCell		
STSG	1.5:1	
	2:1	
	3:1	
	Sheet	
	Meek (ratio)	
VAC		
Other		

DRESSINGS		
Betadine sandwich	Quantity	
Surfasoft		
Acticoat		
Kytocel		
Hypafix		
Crepe bandage	4 inch	Quantity
	6 inch	Quantity
Epiprotect		

INSET	
Histoacryl	
Staples	
Tisseel	
Prolene 3-0 4-0 5-0	
Plaster trolley	

PROCEDURE



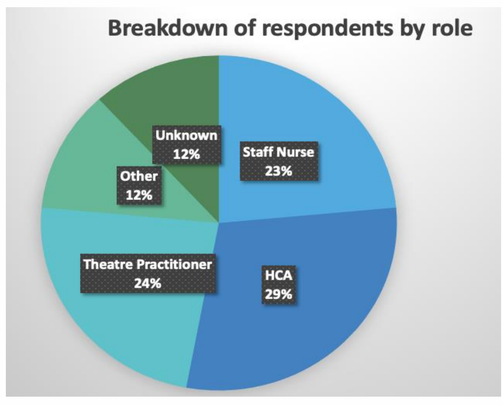
Information includes:

- Patient details e.g %TBSA, comorbidities etc.
- Anaesthetic details e.g lines required, IVAbx
- Pre-surgical requirements e.g wound care
- Procedure details and required equipment
- Visualisation of planned procedures on second page e.g donor graft sites

4. Methods

- Feedback form distributed to theatre staff
- Questions were divided into 3 main sections:
  1. Clarity of the checklist
  2. Relevance to nursing practice
  3. Practical use
- Each section contained 3 Likert-scale questions (Strongly disagree (1/5) → Strongly Agree (5/5))
- An additional fourth section was added for free-text suggestions
- Overall usefulness rating 1-5 for checklist provided at the end

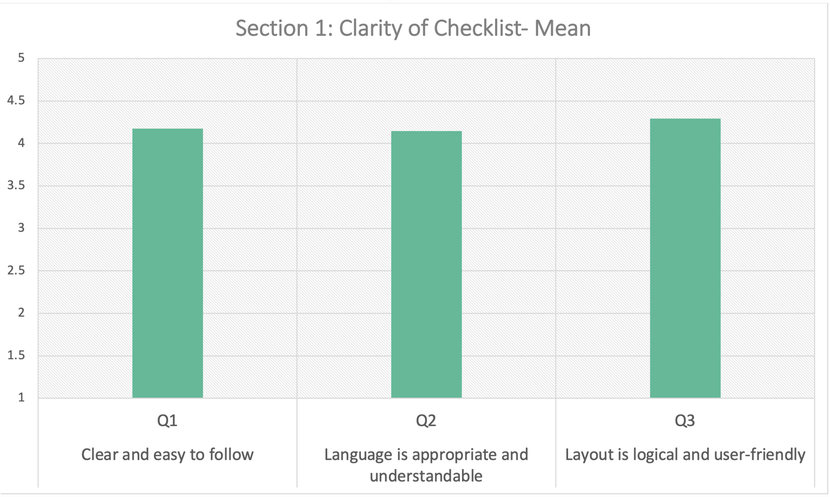
5. Results



There was 17 responses with majority of the feedback from HCAs, theatre practitioners and staff nurses

Other roles included ODPs and Doctors
There were 2 forms with the role left blank (unknown)

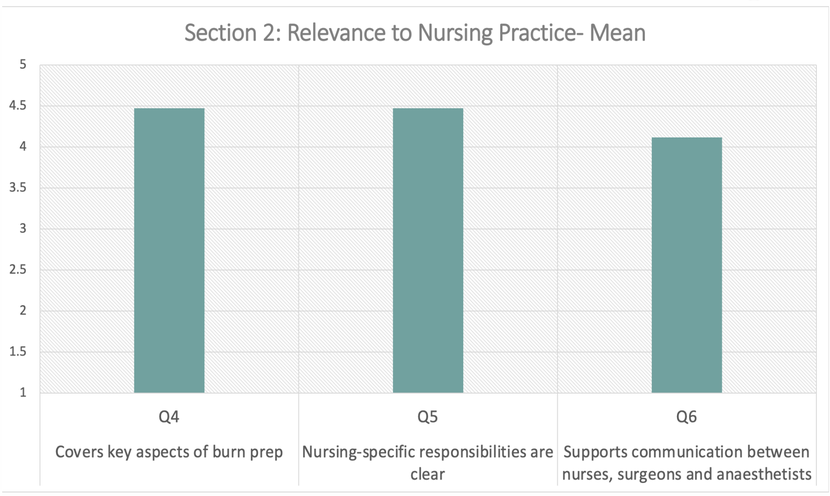
Section 1: Clarity



Section Mean: 4.20

86.3% of respondents either agreed or strongly agreed the checklist was easy to understand

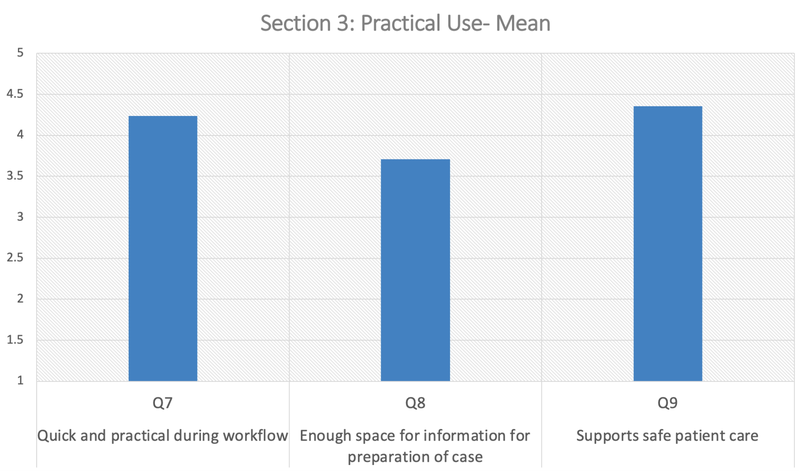
Section 2: Relevance to Nursing Practice



Section Mean: 4.35

Q6 had lower agree/strongly agree (76.5%) suggesting potential communication barriers

Section 3: Practical Use



Section Mean: 4.10 (lowest scored)

Only 70.5% agree/strongly agree for Q8

Suggests potential design improvements

Section 4: Free text suggestions

What worked well:
- Less rushing
- Less last minute clarifications
- Pictures describe burn well
- Good for individual cases
- Provided clear information

What was unclear/improvements:
- Checklist should be shared day before surgery rather than in the morning
- Can get misplaced/lost
- Last minute procedure changes made checklist invalid

6. Conclusions

- The checklist was well received across different staff groups. The mean overall perceived usefulness rating was 4.47, with 88.2% giving 4/5 or 5/5
- Limitations include a small sample size, only conducted in one centre and we are yet to assess quantitative impact on theatre efficiency or delay rates
- In the future, we hope for earlier checklist distribution, standardising storage methods and conducting a larger re-audit to include theatre efficiency