

Bwrdd Iechyd Prifysgol Aneurin Bevan University Health Board

# Aneurin Bevan University Health Board

# Elective Caesarean Section Pathway

*N.B.* Staff should be discouraged from printing this document. This is to avoid the risk of out of date printed versions of the document. The Intranet should be referred to for the current version of the document.

#### **Contents:**

Introduction	
Statement	
Aims. Error! Bookmark not defined.	
Objectives	Error! Bookmark not defined.
Scope Error! Bookmark not defined.	
Roles and Responsibilities	3
Main Body	Error! Bookmark not defined.
Resources	Error! Bookmark not defined.
Training	Error! Bookmark not defined.
Initial Assessment	Error! Bookmark not defined.
Pre-Op Assessment: Midwife and Doctor	5
Obstetric Team Clerking	6
Doctor Pre-Op assessment	7-13
Recovery	14
Postnatal care and discharge	15 to 16

#### 1. Introduction/Overview

This guideline provides guidance to midwives, obstetricians and other health care professionals.

#### 2. Statement- Purpose / Objectives

- To ensure standardised best practice for birthing people pre, intra and post operatively and provide safe and holistic care
- To assess the physical and psychological state of the birthing person so that potential problems can be anticipated and prevented

To minimise post-operative complications

To facilitate enhanced recovery after surgery and timely discharge

To ensure compliance with local and national guidelines

#### 3. Aims

To provide support to clinical decision making To provide support for evidence-based management

#### 4. Roles and Responsibilities

The maternity management team

#### 5.Monitoring and Effectiveness:

Local service improvement plan will guide monitoring and effectiveness. This policy has undergone an equality impact assessment screening process using toolkit designed by NHS centre Equality and Human rights.

#### 6.Training

- Staff are expected to access appropriate training where provided
- Training needs will be identified through appraisal and clinical supervision.

### Initial Assessment: At time of Caesarean booking

Date of Booking	
Named consultant	
Booked by	.Sign

Allergies

Indication for Caesarean	
Previous Caesareans (number/ indication/complications)	
Other abdominal Surgeries	
Placental Site	
Special considerations/medical	conditions/additional procedures:

Date of Caesarean.....Booked in MDU Diary? Yes 🗆 No 🗆

Gestation at delivery...... Antenatal Steroids needed? Yes □ No □

Other fetal concerns?.....Last USS date.....

-MRSA swab taken 🗆

- -Caesarean leaflet given 🗆
- -Contraception leaflet given  $\Box$

-Advised NOT to shave or wax pubic hair for 10 days prior to surgery □

-Hb check at 34-36/40? Yes □ No □

Result.....

Repeat Hb if required: Yes  $\Box$  N/A  $\Box$ 

-IV iron required? Yes 🗆 No 🗆

Date/time for infusion.....

Caesarean Risk
Score (See appendix)

On antenatal thromboprophylaxis? Yes D No D

Time to give last dose.....

(Stop prophylactic fragmin 12 hours pre-op and treatment dose 24 hours pre op. Stop Fondaparinex 72 hours preop)

	Pre-operative	e assessmer	nt: Midwife
Date	Completed by		Grade
Signature		Registra	ation number
HR	Resps	Тетр	FH
BP	Sats	Urine dip	CTG (if indicated)
MRSA: Positive 🗌	Negative 🗌 (If	positive, contact on	call microbiologist for advice)
Bloods taken: FBC	C□ G&S □		Contact numbers given $\square$
Pre	-operative as	sessment cl	erking: Doctor
Consent form cor Blood group	-	Additional a	ntibodies
Check 2 x G&S		Diabetes?	Yes 🗌 No 🗌
samples sent		Type? GD	0M 🗌 Type I 🗌 Type II 🗌
Omeprazole 20n (Night pre & morning o	of surgery)	Metformi	n 🗌 Insulin 🗌 Diet 🗌
Instructions for p food/ fluids (ene	-	Sliding sca	ale:
Medication char	t	-	Yes 🗌 No 🗌
Regular medicat charted	ions	Prescribe	d? Yes 🗌 No 🗌
Antiembolic stoc prescribed	ckings	Post-nata	I contraception choice: (circle)
Thromboprophy stopping instruct (if applicable- see page	tions	Mirena Implant	TL Depot POP Copper coil None Undecided

## Obstetric team clerking on day of Caesarean

Date..... Time...... Obstetric consultant.....

Consent form validated $\Box$	НВ
Blood: Electronic issue: Yes 🗌 No 🔲	Platelets
Crossmatched blood required? Yes $\Box$ No $\Box$	Blood Group
RBC Units requested	15% MBL

Presentation scan if required	
(eg breech/ twins)	
For tubal ligation or Mirena?	
Cell salvage required in theatre?	

Risk Factors Present	Yes	No	Comment
GDM/ Diabetes			? sliding scale insulin required
Asthma			
PET			
Hypertension			Antihypertensives:
IUGR			Dopplers:
Antenatal Thromboprophylaxis			Time of last dose:

#### Birthing person's wishes:

Birth partner name	Relationship
Wishes to see baby at delivery Yes 🗆 No 🗆	·
Skin to skin Yes 🗆 No 🗆	
Partner to trim cord Yes 🗆 No 🗆	
Sex of baby known? Yes □ No □ How to discover?	)

Other requests:.....

May have clear oral fluids...... Until (time)...... (Discuss with anaesthetic team if unsure and consider IV fluids if theatre delay)

Clerking completed by (Obstetric team member):

Name......Grade.....Sign......GMC.....

# Midwife/ theatre pre-operative checklist

Name of person completing......Role.....Sign.....

	Temp	
	Heart rate	
	BP	
	O2 sats	
	Resp rate	
	Fetal heart	
	CTG	
		Heart rate BP O2 sats Resp rate Fetal heart CTG

#### ALLERGIES

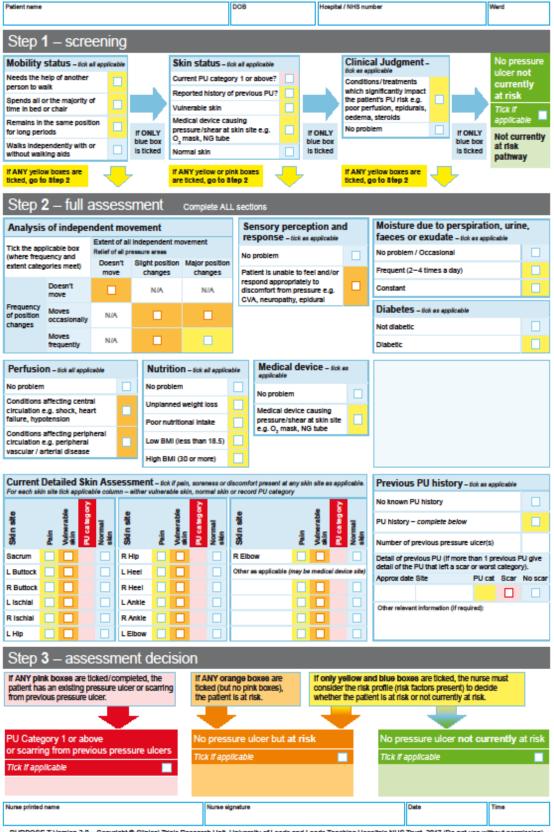
PROSTHESIS	Yes	No
Dentures		
Caps/Crowns		
Loose Teeth		
Hearing Aid		
Spectacles		
Contact Lenses		
Inhalers		
Implants		

FASTING	Date	Time
Food		
Fluids		

Documents	5
Medical notes	
Prescription chart	
Anaesthetic chart	
Baby documents	
Armbands	
Vit K consent	
Yes 🗆 No 🗆	

Neonatal team required?					
Yes					
No					
Time informed					

#### Pressure Ulcer Risk Assessment – PURPOSE T (V2)



PURPOSE T Version 2.0 - Copyright C Clinical Trials Research Unit, University of Leeds and Leeds Teaching Hospitals NHS Trust, 2017 (Do not use without permission)

# In theatre: WHO surgical safety pre-op check list

#### **SIGN IN**

(Say out loud after arrival of patient in theatre)

□ Has the patient confirmed their identity, procedure and consent?

□ Is the anaesthetic machine and medication check complete?

Does the patient have a known allergy?

□ Is there a difficult airway risk?

□ Are blood products available?

□ Has antacid prophylaxis been given?

□ Is the resuscitaire checked and ready?

Completed by.....

Role

Sign.....

#### **TIME OUT**

(Say out loud before skin incision)

□ Have all the team members introduced themselves by name and role?

#### **Obstetrician:**

□ What additional procedures are planned?

 $\Box$  Are there any critical or unusual steps?

 $\Box$  Are there any concerns about the placental site?

#### Anaesthetist:

 $\Box$  Are there any anaesthetic concerns?

 $\Box$  Have antibiotics been given?

#### Scrub practitioner:

□ Has the sterility of instruments been confirmed?

□ Are there any equipment issues or concerns?

#### Midwife:

 $\Box$  Are cord blood samples needed?

 $\Box$  Is the urinary catheter draining?

□ Has VTE prophylaxis been undertaken?

Completed by
Role
Sign

# In theatre: To be completed by Midwife

Time In to theatre	
Time Anaesthetic commenced	
Time Anaesthetic completed (checked and ready)	

Fetal heart checked post anaesthetic 
Rate.....

#### Theatre Resuscitaire checked $\Box$

Checked by: Name......Signature.....

IV Cannula Insertion							
Date:	Time:		Site:				
Hand hygiene.	Skin prep.		PPE			Dressing	
Inserted by:	F	Role:			Signat	ure:	

Urinary Catheter Insertion for Elective Caesarean					
DATE:	TIM	Е:	LOCAT	ION:	
NAME (Print)	:	SIGNATURE:			
	INSERTION TECH	INIQUE	YES	NO	IF NOT – WHY NOT? PLEASE STATE REASON
<ul> <li>Hance</li> </ul>	<ul> <li>Hand hygiene performed prior to insertion</li> </ul>				
Apron/Gown worn					
Sterile gloves worn					
<ul> <li>Sterile Field/drapes insitu</li> </ul>					
Ureth	Urethral meatus cleaned with sterile normal saline				
<ul> <li>Salin</li> </ul>	Saline/ Instagel lubricant used				
Ballo	Balloon inflated with 10ml sterile saline				
Informed Consent					
Eye/facial prot	ection required if risk o	of splash			
Retention Residual Volume (ml)			Pl	ace Cath	eter tracer stickers here

Name		
	(Twin 2 in shaded areas)	Time
	Knife to skin	
	Knife to uterus	
	Baby/ babies delivered	
	Cord clamping	
	(Minutes after delivery)	
	Placenta(s) delivered	
	$\neg$	
	Skin closed	
	Name	(Twin 2 in shaded areas)         (Twin 2 in shaded areas)         Knife to skin         Knife to uterus         Baby/ babies delivered         Cord clamping         (Minutes after delivery)         Placenta(s) delivered

### Total measured blood loss (including cell salvage)

Post operative check	list	
Catheter draining?	Yes 🗆 No 🗆	Clear D Bloodstained D
Drain in situ	Yes 🗆 No 🗆	Size:
Bakri balloon	Yes 🗆 No 🗆	Armband
Vaginal pack (s)	Yes 🗆 No 🗆	Number: Armband(s) $\Box$
Syntocinon infusion?	Yes 🗆 No 🗆	
Skin integrity checked?	Yes 🗆 No 🗆	Comments:
Obs Cymru pathway used?	Yes 🗆 No 🗆	Completed? Yes □ No □

#### Pressure Ulcer Risk Assessment – PURPOSE T (V2) DOB tal / NHS number Step 1 – screening Mobility status - tick all applicable Skin status - tick all applicable Clinical Judgment -No pressu er not Needs the help of another Current PU category 1 or above? Conditions/treatments currently person to wall which significantly impact the patient's PU risk e.g. Reported history of previous PU? at risk Spends all or the majority of Vulnerable skin poor perfusion, epidurais, time in bed or chair Tick If oedema, steroids Medical device causing Remains in the same position pressure/shear at skin site e.g. O, mask, NG tube No problem If ONLY blue box If ONLY blue box for iong periods IT ONLY Not currently Walks independently with or without walking aids at risk is ticked is ticked is ticked Normal skin pathway If ANY yellow boxes are ticked, go to Step 2 If ANY yellow or pink boxes are ticked, go to Step 2 If ANY yellow boxes are ticked, go to Step 2 Step 2 – full assessment Complete ALL sections Moisture due to perspiration, urine, Analysis of independent movement Sensory perception and faeces or exudate - tick as applicable response - tick as applicable Extent of all independent movement Tick the applicable box No problem / Occasional ef of all pr No problem (where frequency and Slight position Doesn't n Major po extent categories meeti Frequent (2-4 times a day) Patient is unable to feel and/or move changes changes respond appropriately to discomfort from pressure e.g. Doesn't move Constant N/A N/A CVA, neuropathy, epidural Frequency of position Diabetes - tick as applicable Moves N/A occasionally changes Not diabetic Moves frequently NIA Diabetic Medical device - tick at Perfusion - tick all applicable Nutrition - tick all applicable No problem No problem No problem Conditions affecting central ned weight loss Unpl circulation e.g. shock, heart failure, hypotension Medical device causing pressure/shear at skin site e.g. O, mask, NG tube Poor nutritional intake Conditions affecting peripheral circulation e.g. peripheral Low BMI (less than 18.5) vascular / arterial disease High BMI (30 or more) Current Detailed Skin Assessment – tick if pain, screness or disconfort present at any skin site as applicable. For each skin site tick applicable column – either vulnerable skin, normal skin or record PU category Previous PU history - tick at applicable PU category No known PU history PU category PU category đ đ 翁 Normal skin PU history - complete below Normal skin Normal skin Skin **M** Sidn Skin 1 Į 1 Number of previous pressure ulcer(s) Sacrum RHIp R Elbow Detail of previous PU (If more than 1 previous PU give detail of the PU that left a scar or worst category L Buttock L Heel Other as applicable (may be medical de ine site PU cat Scar No scar Approx date Site R Buttock R Heel L Ischial L Ankle Other relevant information (if required): R Ischial R Ankle L HID L Elbow Step 3 – assessment decision If ANY plink boxes are ticked/completed, the patient has an existing pressure uicer or scarring from previous pressure uicer. If ANY orange boxes are If only yellow and blue boxes are ticked, the nurse must er the risk profile (risk factors present) to decide ticked (but no pink boxes), consid the patient is at risk. whether the patient is at risk or not currently at risk. No pressure ulcer not currently at risk PU Category 1 or above No pressure ulcer but at risk or scarring from previous pressure ulcers Tick If applicable Tick If applicable Tick If applicable Nurse printed name Oute Time Nurse signature

PURPOSE T Version 2.0 - Copyright C Clinical Trials Research Unit, University of Leeds and Leeds Teaching Hospitals NHS Trust, 2017 (Do not use without permission)

#### 12

Post operative counts checked, and correct?					
Swabs		Needles		Instruments	
Yes 🗆 No 🗆		Yes $\Box$ No $\Box$		Yes 🗆 No 🗆	
Scrub nurse	Name	<b>;</b>	Signature		
Runner	Name		Signature		
Kuillei	Inallic	, ,	Signature		
Instrument traceabi	lity sti	ckers (attach	below)		
		,			

# In theatre: WHO surgical safety post-op check list

	SIGN OUT (Say out loud before the woman leaves theatre)
Practitio	oner verbally confirms with team:
	the name of the procedure and any nal procedures been recorded?
□ Are s	swabs, instruments and sharps correct?
🗆 Have	e specimens been labelled?
□ Has I	blood loss been recorded?
Obstetri	cian, Anaesthetist and Midwife:
🗆 Кеу	concerns for recovery?
🗆 Has	VTE prophylaxis been prescribed?
Anaesth	etist and theatre team:
	e any equipment problems been ed that need to be addressed?
Midwife	
🗆 Has	the baby/babies been labelled?
🗆 Have	e relevant cord bloods been taken?
🗆 Have	e cord gases been recorded?
Complet	ted by
Role	
Sign	
OATIX ree	quired? YES 🗆 NO 🗖 Completed? YES 🗖 NO 🕻

# Baby summary and checklist: Midwife

Patient discha			RMIS				
Date of birth:		Time of bir	th:		eight:		
Cord pH:	Venous			Arterial			
Apgar scores:	1 min		5 mir		10	min	
Seen by neona	tal team?	Yes 🗆 No		Admitted to	SCBU	?Yes[	□ No □
Abnormalities	detected?	Yes 🗆 No					
Comments:							
Placenta: Placenta complete? Yes 🗆 No 🗆							
Comments							
Microbiology swabs sent? Yes 🗆 No 🗆							
Placenta sent for histology? Yes 🗆 No 🗆							
Membranes: c	omplete?	Yes 🗆 N	o 🗆 🛛	Comments			,
Rh Status: Po	sitive 🗆 N	legative. 🗆		Kleihaur ta	ken?	Yes 🗆	No 🗆
(Remember to ensure that	t samples are label	led at bedside and che	cked that de	etails are correct befo	ore sending	to blood ba	unk)

Vitamin K given	Yes 🗆	No 🗆	IM 🗆 Oral 🗆
Skin to skin	Yes 🗆	No 🗆	Time commenced:
First feed	Yes 🗆	No 🗆	BF AF Time:
Observations required	Yes 🗆	No 🗆	Details:

Completed by: Name......Designation.....Sign....

# Post-operative care: Recovery

Recovery checklist		
MEOWS	Time:	Normal 🗆 Abnormal. 🗆
commenced		
Catheter draining?	Yes 🗆 No 🗆	Clear  Bloodstained
Skin to skin	Yes 🗆 No 🗆	If no, reason:
facilitated		
First feed for baby	Time:	BF 🗆 AF 🗆
Oral fluids given	Yes 🗆 No 🗆	Time:
(aim asap post op*)		
Wound checked	Time:	Intact  Concerns
PV loss checked	Time:	Additional MBL: ml
TOTAL MBL	ml	

Handover to	Post	Op ward/HDU			
Anaesthetic ty	уре		Sp	inal morphine?	Yes 🗆 No 🗆
Catheter drain	ning?	Yes 🗆 No 🗆	Pla	in for removal:	
Drain in situ?		Yes 🗆 No 🗆	Pla	in for removal:	
Bakri balloon	?	Yes 🗆 No 🗆	Pla	in for removal:	
Vaginal pack (	s)	Yes 🗆 No 🗆	Nu	mber	
			Pla	in for removal:	
Syntocinon		Yes 🗆 No 🗆	Tir	ne to stop:	
infusion?					
MgSo4 infusio	on?	Yes 🗆 No 🗆	Tir	ne to stop:	
Antibiotics		Yes 🗆 No 🗆	Tir	ne to review:	
prescribed?					
VTE prophylax	xis	Yes 🗆 No 🗆	Tir	ne to administe	er:
required?					
Comments/					
additional info	<u>o</u>				
Recovery	Name			POSW	Name
Nurse/midwife	Signatu	ire		Nurse/midwife	Signature

# Post-natal care and discharge

Enhanced recovery after surgical del	ivery checklist		
*Routine care in uncomplicated cases unless post op	perative plan states of	therwise	
		1	
Eating and drinking	Yes 🗆 No 🗆	Time:	
Mobilised	Yes 🗆 No 🗆	Time:	
(Aim within 12 hours*)			
Venous canula removed?	Yes 🗆 No 🗆	Time:	
(Aim within 6 hours if no concerns*)			
Urinary catheter removed	Yes 🗆 No 🗆	Time:	
(Aim within 6 hours unless otherwise stated*)			
Urine void meets discharge criteria	Yes 🗆 No 🗆		
(If no, refer to failed TWOC pathway*)			
TTH completed	Yes 🗆 No 🗆		
(Aim post op day 0)			
FBC taken:	Yes 🗆 No 🗆	Time:	HB:
(Aim before 10am post op day 1*)			
POSW	Name		·
Nurse/midwife	Signature		

Post-natal contraception						
Advised to avoid pregnan	cy for at least	12 months	post C/S	Yes 🗆 No 🗆		
Contraception discussed	Yes 🗆 No 🗆					
Contraception choice	Mirena inserte	d at C/S	POP	Declined		
(Please circle. If Depo or implant given before discharge, record below)	Copper coil ins	Copper coil inserted at C/S Deporovera				
	For Mirena/coil >6 weeks post-natal (GP) Impla					
	For COCP >6 weeks post-natal (GP)					
LARC/ prescription given	Yes 🗆 No 🗆	Details:				
before discharge?						
Advise coil check 6	Yes 🗆 No 🗆 N/A 🗆					
weeks PN if Mirena/ coil						
POSW	Name					
Nurse/midwife/doctor	Signature					

Obstetric debrief and revi	ew		
Patient debriefed (tick one and record details in op note or patient notes)	In theatre 🛛	In recovery 🗆	On ward 🗆
Suitable for VBAC?	Yes 🗆 No 🗆	Details of complications	
Suitable for midwife led discharge?	Yes 🗆 No 🗆		
Obstetric review required? (Record on post-natal review proforma)	Yes 🗆 No 🗆	Completed 🗆	

Anaesthetic review	Completed $\Box$	Suitable for discharge?	Yes 🗆 No 🗆
(recorded separately)			
Anaesthetic team	Name:		
	Signature:		

Discharge Checklist		
Oral analgesia prescribed	Yes 🗆 No 🗆	
Oral iron required?	Yes 🗆 No 🗆	Details:
IV iron infusion required?	Yes 🗆 No 🗆	Details:
Thromboprophylaxis (assessment completed and fragmin prescribed if applicable)	Yes 🗆 No 🗆	Details:
Antibiotics (Reviewed and prescribed if applicable)	Yes 🗆 No 🗆 NA 🗆	Details:
Antihypertensives (Reviewed and prescribed if applicable)	Yes 🗆 No 🗆 NA 🗆	Details:
Patients with GDM (Advised to have fasting glucose checked in 6 weeks with GP)	Yes 🗆 No 🗆 NA 🗆	Details:
Regular medications	Yes 🗆 No 🗆	
reviewed/prescribed	NA 🗆	
Completed by	Name:	
	Signature:	

# Appendix 1: Elective caesarean risk score

Elective Caesarean Section Risk Score	Chart
Breech Maternal request Gestational diabetes/Type 1/ Type 2 Previous 3 <sup>rd</sup> /4 <sup>th</sup> degree tear Previous traumatic delivery Prematurity 34+ to 37 weeks Maternal red cell antibodies requiring X matched blood	Patient score: 1
BMI >35-40 Prematurity 28+0 to 33+6 weeks Small or clinically significant fibroids One previous caesarean section Unstable/transverse lie	Patient score: 2
BMI >40-45 Multiple pregnancy Tubal ligation/salpingectomy/cystectomy 2 x previous caesarean sections Prematurity under 28+0 weeks	Patient score: 3
Previous midline laparotomy Placenta praevia High risk of abdominal adhesions BMI> 45-50 3 x previous caesarean sections Birthing person declining blood products/ cell salvage Spinal injury patient	Patient score: 4
BMI>50 4 or more previous caesarean sections	Patient score: 5
Placenta accreta	Patient score: 6

# Appendix 2: Waterlow score tool

BUILD/WEIGHT FOR HEIGHT	٠	SKIN TYPE VISUAL RISK AREAS	٠	SEX AGE	٠	MALNU (Nutrit	TRIT	ION SCR Vol.15, N	EENING TOOL (MST) o.6 1999 - Australia	
AVERAGE BMI = 20-24.9 ABOVE AVERAGE BMI = 25-29.9 OBESE BMI > 30 BELOW AVERAGE BMI = 20 BMI = V2(Kg)/Ht (m) <sup>7</sup>	0 1 2 3	HEALTHY TISSUE PAPER DRY OEDEMATOUS CLAMMY, PYREXIA DISCOLOURED GRADE 1 BROKEN/SPOTS GRADE 2-4	0 1 1 1 2 3	MALE FEMALE 14 - 49 50 - 64 65 - 74 75 - 80 81 +	1 2 1 2 3 4 5	NO - O UNSURE - O	CENT GO TO GO TO GO TO ND SCOR TING PPE	E 2 U POORLY TITE	VEIGHT LOSS SCORE .5 - 5kg = 1 5 - 10kg = 2 10 - 15kg = 3 > 15kg = 4 nsure = 2 NUTRITION SCORE If > 2 refer for nutrition assessment / intervention	T
CONTINENCE	٠	MOBILITY	۲			SP	EC	AL RIS	KS	
COMPLETE/ CATHETERISED URINE INCONT. FAECAL INCONT. URINARY + FAECAL INCONTINENCE	0 1 2 3	FULLY RESTLESS/FIDGETY APATHETIC RESTRICTED BEDBOUND e.g. TRACTION CHAIRBOUND	0 1 2 3 4	TISSUE MALNUTRITION TERMINAL CACHEXIA MULTIPLE ORGAN FAILURE SINGLE ORGAN FAILURE (RESP, RENAL, CARDIAC,)		* 8 8 5	DIABETE MOTOR/S PARAPLE	ROLOGICAL DEFICIT IS, MS, CVA SENSORY EGIA (MAX OF 6)	4 4 4	
SCORE		e.g. WHEELCHAIR	5	DISEASE		VASCULAR	5		R SURGERY or TRAUI	
10+ AT RISK				ANAEMIA	A (Hb	< 8)	2	ON TABL	AEDIC/SPINAL E > 2 HR# E > 6 HR#	5 5 8
15+ HIGH RISK				MED	DICAT	ION - CYTOTOXI ANTI-INFLA	CS, I	ONG TER	M/HIGH DOSE STEROIDS, MAX OF 4	-
20+ VERY HIGH RI	SK			# Second 4	an b				ed patient is recovering non	mall