Alder Hey Children's NHS
NHS Foundation Trust

Reference Number: FOI202223/574
From: Other

Date: 06 February 2023

Subject: Details of trauma protocol for pregnant patients presenting in the Emergency Department

Q1 Does your hospital/trust have a trauma protocol for pregnant patients presenting in the Emergency Department with trauma?

A1 Yes

Q2 If yes, could you please attach it with your response to this email?

A2 Please see attached document: Major Trauma Clinical Guidelines Section 14 - Trauma In Pregnancy

Q3 Which specialties are called for a trauma call in pregnant patients?

A3 Obstetrics and Neonatology in addition to usual full Trauma Team response (Emergency Department, Anaesthetics, Paediatric Surgery, Orthopaedic Surgery).

Q4 Do you routinely call Obstetrics and Gynaecology as part of this initial trauma call?

A4 Yes – although the Obstetric Team is based in another hospital and would be required to travel.

Trauma in Pregnancy

Consultation
This guideline was developed with input from the North West Children's Major Trauma Network. These guidelines were circulated amongst the Alder Hey Children's Hospital Major Trauma Committee for ratification during December 2019. All comments received have been reviewed and appropriate amendments incorporated.

Approval
The original guideline was signed off by the Network's Clinical Leads, Naomi Davis-Clinical Lead Major Trauma RMCH and Bimal Mehta-Clinical Lead Major Trauma Alder Hey Children's Hospital in February 2015.

The guideline has been reviewed in December 2019, updated as required and approved for use until January 2021.

Ratification Process
These network guidelines were ratified by Royal Manchester Children's Hospital as the host organization of the North West Children's Trauma Network and approved for use in Alder Hey by the Alder Hey Trauma Committee.

Reference sources

Advanced Paediatric Life Support 6th Edition. 2016 incorporaing September 2019 Updates. ALSG.

Paediatric trauma proctocols. Royal College of Radiologists 2014 with September 2017 update. RCR.

Major trauma: assessment and initial management. NICE Guideline NG39. February 2016.

Head injury: assessment and early management. NICE Clinical guideline CG176. September 2019 update.

Guidelines for the management of Pediatric Severe TBI 3rd edition. Brain Trauma Foundation. March 2019.

British Orthopaedic Association Standards for Trauma and Orthopaedics.
https://www.boa.ac.uk/standards-guidance/boasts.html

Trauma in Pregnancy

There are no Obstetric services at Alder Hey Hospital.
For the pregnant adolescent that is brought to Alder Hey having suffered serious trauma the Cheshire and Mersey Pregnant Major Trauma Pathway appended will be activated.

The priority is to resuscitate the mother. Uterine compression of the inferior vena cava can occur from 20 weeks gestation. It is essential to either manually displace the uterus to the left or to raise the patient by 10-12cms on the right side whilst on the spinal board. Spinal precautions should always be maintained.

There is an increased intravascular volume in pregnancy, so a significant amount of blood can be lost before the mothers vital signs appear to have changed below normal. Depending on the degree of trauma and the age of the patient it may be appropriate to use the maternal early warning score.

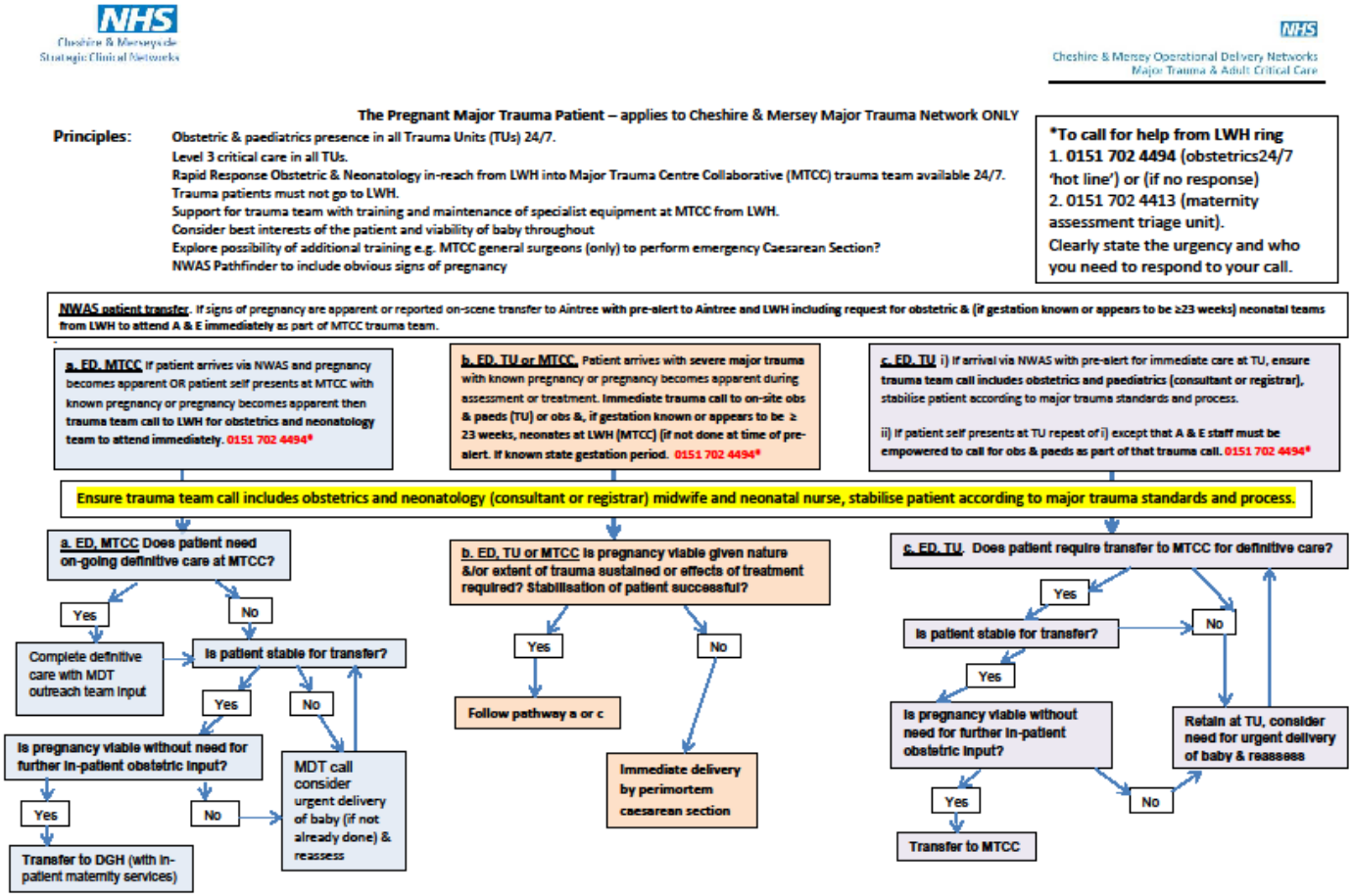
Abdominal exam must include examination of the uterus to determine if there is evidence of uterine rupture or placental abruption in particular. The vagina should also be examined to exclude vaginal bleeding.

If the patient is being actively resuscitated the obstetric crash team should be summoned, refer to local standard operational policy. In the case of the patient requiring advanced life support the aim would be to begin to perform a periarrest or perimortem caesarean section within four minutes of the arrest with delivery by five minutes refer to local standard operational policy.

Fetal heart sounds can be auscultated using a Doppler in gestations >12weeks but this must be done by someone experienced in its usage as it is not uncommon for a maternal tachycardia to be interpreted as a fetal heartbeat.

Any girl who is greater than 12 weeks gestation and Rhesus negative will need anti-D prescribed if there is any evidence of bleeding/ significant trauma. A Kleihauer should be taken prior to administration and sent to haematology.

If the patient is Rhesus negative she is likely to require anti-D. This will need to be administered as per the Anti D Immunoglobulin Prophylaxis for Rhesus D Negative Women which can be found on the intranet under maternity policies. In order for the arrangements to be made for the timely administration of anti-D please refer to local standard operational policy.



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Document Control Sheet

Alder Hey Major Trauma Trauma in Pregnancy	
Version:	3.1
Name of originator/author:	Bimal Mehta
Approved by:	Alder Hey Trauma Committee
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Key search words:	Major trauma, trauma, trauma system, trauma network, pregnancy, pregnant, maternal
Date issued:	February 2021 (Extended)
Review date:	December 2022

Version Control Table				
Version	**Date**	**Author**	**Status**	**Comment**
3.1	February 2021	B. Mehta	Current	Extended to 3 yearly review
3	06/01/2020	B. Mehta	Archived	Updated from NWCMTN clinical guidelines
2	18/02/15	B. Mehta, N. Davis	Archived	NWCTMN approved clinical guidelines
1	2013	B. Mehta	Archived	Alder Hey Major Trauma Standard Operating Procedures and Guidelines

Review & Amendment Log Record of changes made to document since last approved version			
Section Number	**Page Number**	**Change/s made**	**Reason for change**
N/A	1	Updated references	
N/A	2 and 3	References and algorithm for C&M Pregnant Major Trauma Patient Pathway	Updated pathway July 2019