LEARNING MATTERS
MATERNITY

EDITION 22
JUNE 2022

IN THIS EDITION

Link below to previous Learning Matters:
Learning Matters Newsletters | HSC Public Health Agency (hscni.net)

Welcome to edition 22 of the Learning Matters Newsletter. Health and Social Care in Northern Ireland endeavours to provide the highest quality service to those in its care. We recognise that we need to use a variety of ways to share learning therefore the purpose of this newsletter is to complement the existing methods by providing staff with short examples of incidents where learning has been identified.

HSC Health and Social Care

QUALITY 2020

Failure to act on abnormal results

A primigravida patient was initially triaged as low risk. However, she presented 4 times to the admissions unit with reduced fetal movements (26.5 weeks), abdominal pain and vomiting (28+6 & 29+1) and vaginal bleeding (30+1). in light of these attendances she was referred for Consultant review.

The assessments carried out were normal, except for a liver function test (LFT). This was noted to be marginally abnormal at 28+6 weeks. Repeat tests were normal, or marginally abnormal until a test at 37+2 weeks was significantly abnormal; unfortunately this result was not actioned.

The woman was assessed by a consultant in the antenatal clinic when 31+2 and 37+2 weeks pregnant. Both assessments included detailed ultrasound scans which showed estimated fetal growth was appropriate and a healthy environment.

She presented in advanced labour at 38 weeks, unfortunately an intrauterine death was diagnosed when in delivery suite. The baby was born without signs of life later that day. A Coroner's autopsy was performed and the cause of death was noted as acute chorioamnionitis, due to Escherichia Coli, and Group B Streptococcus infection.

This event coincided with the height of the first wave of the coronavirus pandemic and healthcare precautions were in place which impacted on the schedule of antenatal review appointments between 31-37 weeks. However, it did not have an impact on the final outcome.

KEY LEARNING

- Referral for consultant review following 4 attendances at admissions is a point of good practice.
- Transfer from midwifery to consultant care was appropriate, however the accompanying documentation outlining the reason for transfer needs to be completed in full to ensure a comprehensive review is undertaken.
- A robust, quality assured system for review of test results is vital to ensure timely action of abnormal results and identification of possible risk factors.
- This system should include how results are communicated to the woman and other members of the multidisciplinary team.
- New and redeployed staff should be orientated to the system as part of their induction.
- Abnormal liver function tests require full investigation to rule out obstetric cholestasis and identify other potential causes.
- During such circumstances as the coronavirus pandemic when access to face to face contacts may be restricted, contact should be maintained by phone or online.

Useful references 1 2 3

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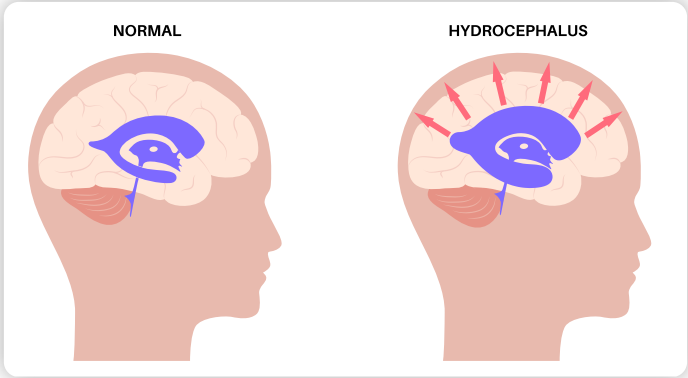
Accurate identification of high risk women with history of a VP shunt



Maternal death is thankfully a rare occurrence in the UK today, however a case in Northern Ireland highlighted the importance of recognising significant past medical history and the impact it can have during pregnancy.

This woman was a primigravida with a childhood history of a skull deformity which necessitated the insertion of a ventriculoperitoneal (VP) shunt. In later life she was also diagnosed with renal carcinoma and had undergone a nephrectomy.

At 28 weeks pregnant she developed hypertension and persistent headaches, she was treated with antihypertensive medication and was subsequently induced at 37 +4 weeks, indication being pregnancy induced hypertension (PIH). She had a normal birth complicated by a third degree tear. Six hour post-delivery she developed an acute headache and then suffered a cardiac arrest. Despite cardiopulmonary resuscitation (CPR) she remained unresponsive; a subsequent computerised tomography (CT) scan of the brain confirmed hydrocephalus and a significant brain injury from which she could not recover. She died 2 days post-partum.

KEY LEARNING

- Women with a history of VP shunt insertion are at higher risk of developing acute hydrocephalous during pregnancy.
- Northern Ireland regional maternity system (NIIMATS) should be updated to include a specific field in relation to history of VP shunt insertion.
- This should form part of their initial risk assessment at booking and ensure they receive consultant care during their pregnancy.
- Liaison with appropriate medical colleagues will ensure all potential risks are identified.
- Advice is available 24/7 from the neurosurgical service in Royal Victoria Hospital (RVH).
- Clinicians should be cognizant of a history of VP shunt when the patient develops symptoms such as hypertension or headache and not exclusively focus on PIH as a diagnosis.
- Any patient with a history of a VP shunt who develops a headache requires consultant review and careful consideration for CT scanning. With current CT scanning dosage and appropriate lead shielding, any potential exposure to the fetus will be low.
- With a history of nephrectomy this patient also had an increased risk of developing hypertension.
- To ensure all relevant clinicians and patients are aware of the increased risk, this learning should be shared with neurology as well as maternity services.

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Pressure damage in Maternity Services - Assessment and management

Whilst pressure damage is an infrequent occurrence within maternity services, all women are potentially at risk of developing a pressure ulcer. However, pressure ulcers are more likely to occur in people who are seriously ill, have a neurological condition, impaired mobility or an inability to reposition themselves, impaired nutrition, or poor posture or a deformity.

A complaint was received in relation to a woman who had a history of induction of labour, subsequent epidural and emergency caesarean section. Whilst in recovery, a Midwife identified pressure damage on one of her buttocks. A lack of awareness on the part of staff regarding available services, resulted in issues with the acquisition and function of a pressure relieving mattress. The staff were also unaware that advice from Tissue Viability would not be immediately available because the event occurred at the weekend. Once a treatment plan had been provided by Tissue Viability, ongoing care and treatment was hampered by a breakdown in communication from hospital to community following discharge on Day 3. This woman required ongoing treatment for several weeks following the birth and it had a negative impact on her ability to care for her newborn baby.

KEY LEARNING

PREVENTION

- Pressure ulcers are caused when an area of skin and the tissues below are damaged as a result of being placed under pressure sufficient to impair its blood supply.
- Our primary aim should be the prevention of pressure damage, therefore accurate identification of those women most as risk should be part of every woman's risk assessment.
- Women following epidural or caesarean section in particular are at increased risk due to reduced mobility and an inability to reposition themselves.
- The PHA supports HSC Trusts through the Regional Pressure Ulcer Prevention Group to implement SKIN in all hospitals in Northern Ireland. This Group provides advice, support and shares regional learning across Northern Ireland. It focuses on strategies for pressure prevention and management across the Health and Social Care Trusts.
- SKIN BUNDLE - SSKIN is an acronym that prompts nurses to remember four key elements of good skin care: Surface selection, Skin inspection, Keep moving, Increased moisture management, and Nutrition and hydration.

MANAGEMENT

- When events occur, rarely, clinicans rely on easily accessible, up to date information available in each clinical area.
- The use of a Maternity specific care pathway based on the NICE guidelines - Pressure ulcers: prevention and management Clinical guideline CG179, 2014 would facilitate accurate assessment and management.
- Staff need to have knowledge of the local access arrangements to specialist services such as Tissue Viability and mattress distribution and maintenance.
- When a woman with pressure damage is being discharged, a detailed handover of ongoing care and treatment should take place. This should be detailed within the woman's maternity record.
- Staff should receive ongoing training on the use of the pathway and local services available.

Useful references 1 2

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Transferring sick neonates from local units to the regional intensive care unit

A Term infant was born by emergency caesarean section, there was a maternal history of gestational diabetes and Group B Streptococcus. The baby was admitted to the local neonatal intensive care for respiratory support. The infant's condition deteriorated over the next 24 hours, the baby required intubation and administration of surfactant. The baby was diagnosed with suspected sepsis and persistent pulmonary hypertension (PPHN) and required transfer to the Regional Neonatal Intensive Care Unit (RICU). The regional neonatal and paediatric transfer teams were not available so the transfer was performed by an independent transfer team.

Intravenous access was limited with one peripheral line in place. The NICU team had been unsuccessful in attempting an umbilical venous catheter (UVC). There was no discussion prior to transfer with a paediatric cardiologist despite a diagnosis of congenital heart disease being considered.

The infant was very unstable on arrival in the regional NICU, the baby's condition continued to deteriorate and the baby subsequently required transfer to a hospital in England for extracorporeal membrane oxygenation (ECMO).

KEY LEARNING

- In the case of a critically ill neonate with a possible diagnosis of congenital heart disease born in a local general maternity setting, discussion before transfer with the regional NICU should include the paediatric cardiologist, preferably in a conference call with the neonatal consultant and transport consultant.
- Central venous access or an arterial line should be inserted prior to transfer of an infant to any NICU to maximise the ability to stabilise prior to transfer and facilitate better monitoring of blood gases and blood pressure.
- Attempts to establish central access, including failed attempts should be clearly recorded.
- The use of inotropes should be considered prior to transfer as this is a standard element in the care for persistent pulmonary hypertension in the neonate (PPHN) / suspected sepsis.
- Blood gases should be monitored frequently following intubation and the administration of surfactant.

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Retained swabs – when a "Never Event" recurs

A retained swab is classified as a "Never Event" in the HSC revised Never Events List (August 2021).

> Never Events are patient safety incidents that are wholly preventable where guidance or safety recommendations that provide strong systemic protective barriers are available at a national level and have been implemented by healthcare providers.

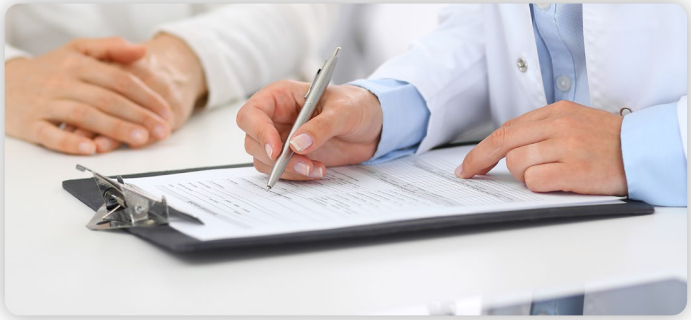
However there have been two recent cases within maternity services involving a retained swab.

The first case was following an instrumental delivery and repair of episiotomy in theatre. The woman's post natal progress appeared normal in hospital and in community until she attended her GP for a routine 6 week postnatal check, at which point a large swab was removed from her vagina. A high vaginal swab (HVS) showed no growth and the woman remained well.

The second woman had a normal birth in a maternity led unit (MLU) and was transferred to theatre for repair of a third degree tear. At day 10 the community midwife referred the woman to the consultant unit with possible endometritis. When a speculum examination was performed a swab was identified and removed. The woman was commenced on antibiotics and suffered no further ill effects.

These events are classed as never events yet the learning identified is the same from both cases.

- When a clinician inserts a swab or tampon into a woman's vagina prior to suturing or for any other reason, a clip should be attached to ensure it is removed.
- A high standard of accurate swab counting and documentation should be maintained in all areas where they are used not just in theatres.
- Roles and responsibilities of staff in theatre need to be clearly identified and communicated especially during procedures such as suturing and trial of forceps. A person in charge of theatre should be assigned for every procedure.
- The use of a theatre competency assessment for relevant staff should be part of induction program.
- Robust handover especially when events occur at shift change is essential to maintain patient safety.
- When women are being transferred from one locality to another care must be taken to ensure an accurate swab count is clearly documented and communicated.



If you have any comments or questions related to this Edition of Learning Matters please get in contact by email at learningmatters@hscni.net

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