



Our Ref: JM/CK

24/10/2023

**Private and Confidential**

[Redacted]

Dear [Redacted]

We are writing to you on behalf of the Saolta University Health Care Group and University Hospital Galway (UHG) to inform you that the Independent Clinical Care review into neonatal subgaleal haemorrhage cases in UHG in 2022 has been completed. This is now available to share with you and your partner.

As you may be aware through the hospital's Quality and Patient Safety process we identified a number of incidents of neonatal subgaleal haemorrhage in 2022. While this was within published accepted limits, the rate was higher than seen previously in the hospital.

As part of our commitment to high quality safe care, we requested an Independent Clinical Care Review by a team from the National Women's and Infant Health Care programme to undertake an independent clinical care review of these cases at UHG. The purpose of this Independent Clinical Care review was to examine all of the details of the clinical care provided to you and your infant during your hospital admission at the time of the birth of your baby in University Hospital Galway.

The report we have forwarded you has two parts to it. Part 1 reflects the review done in University Hospital Galway, Part 2 is the independent external clinical review.

When you have had a chance to read the report, we would like to offer you the opportunity to meet with a Consultant Obstetrician, Consultant Neonatologist, and Senior Midwife. That team are available to meet with you and your partner on the week of the 30<sup>th</sup> of October 2023, to go through the specific findings from the review that relate to the care of you and your baby and to answer any questions you might have. Equally, there is no obligation for you to have a meeting at this time if you feel satisfied with the content of the review supplied to you.

If you have any questions in relation to the enclosed report or indeed the overall process, please contact Eimear Burke, Quality and Patient Safety Coordinator, at Email: [eimear.burke5@hse.ie](mailto:eimear.burke5@hse.ie), telephone: 087 1880896.

We understand that this issue may have caused you worry and concern and we wish to clarify any queries you may have in relation to the content of this report.

Please find enclosed Clinical Care Review Report.

Yours sincerely,

Professor John Morrison  
Director of W&C MCAN  
Saolta Healthcare Group

Ms Chris Kane  
General Manager  
Galway University Hospitals

2023

## Clinical Care Review

**CONFIDENTIAL**

**NIMS Reference: 22683378**

**Ms P & her Female Infant**

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for observation and monitoring, and haemoglobin monitoring at 1 hour and 20 minutes of age.

Full blood count (FBC) and coagulation screen remained normal. Neurological examination was unremarkable. Baby P had a CT scan of the brain on Day 1 of life which confirmed large right sided neonatal subgaleal haemorrhage but no underlying fracture. Baby P required phototherapy for jaundice. Baby P was discharged home on day of life (DOL) 5 with the plan for review in the Outpatients Department (OPD) in 1 month. Baby P was seen in the clinic on 18/10/2022 at 6 weeks of age. She was doing very well at the time and therefore discharged from the clinic.

Ms P was transferred to the postnatal ward on 03/09/2022 at 11.00hrs. She was seen by the consultant who performed the Kiwi delivery – events were explained and Ms P had no questions at that time. Ms P had urinary incontinence and was referred to the Physiotherapy department. She was seen by the PMHT (Perinatal Mental Health Team) and discussed concerns and feelings around her birth. She was offered postnatal follow up as required. These concerns were discussed with the midwife and Obstetric registrar over her admission. Events were discussed and explained. Ms P had requested an iron transfusion, this was not deemed necessary as haemoglobin level (Hb) was 10.3g/dl post birth. Ms P was discharged home 06/09/2022 at 18.45hrs, on antibiotics for a possible Urinary Tract infection and Innohep (blood thinner) for 6 weeks to prevent VTE (Venous Thromboembolism – blood clots). She was offered review at the Gynaecology Outpatients Department (OPD) in 4-6 weeks post birth (10/11/22 is recorded as DNA (Did not attend) - Attended 16/02/2023).

On 03/10/2022, Ms P was readmitted to the hospital after presenting to the MDAU at 30 days postnatal with ongoing urinary symptoms. She had been admitted at 15 days post birth to Hospital 3 and was treated with intravenous antibiotics for five days. A MSU (mid-stream urine) sample isolated "Klebsiella aerogenes". This result was discussed with Microbiology and intravenous antibiotics were commenced. Ms P underwent a pelvic and renal ultrasound scans which did not identify any concerns. She had a urology consult with plan to treat this infection, start preventative treatment and await urology out patients' appointment (not in PIMS). Ms P was discharged home on 06/10/2022 on oral antibiotics for 10 days.

### 2.0 Clinical Review Team

The Clinical Review was completed in two parts:

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All the SGH cases at Hospital 1 were in the minor category. The severity of SGH is classified as mild, moderate and severe, based on the clinical and laboratory findings with the increasing head circumference and the degree of hypovolemia as the major criteria.

The SGHs did not lead to hypovolaemia in any of the cases. None of the infants had a tachycardia, hypotension or a prolonged capillary refill time (CRT). None of the infants had a major increase in head circumference. Only two infants had a haemoglobin (Hb) decrease in the 2-3 g/dl range. No infant had an abnormal coagulation or required a blood transfusion.

No infant developed jaundice requiring phototherapy. Jaundice is common in moderate/severe cases of SGH as the extravasated blood haemolyses and produces bilirubin.

The head circumference (HC) measurements among the nine cases are a little confusing. In two of the cases the measurements at birth were 33cms and 32.5cms with the corresponding measurements on admission to the NICU being 36cms and 36.5cms. The initial measurements must have been incorrectly low. An actual increase in head size of three or four cms would have reflected a very large haemorrhage. It has been estimated that for every one cms increase in head circumference there is a loss of 40 mls of blood (4). An infant will display shock at a threshold of 50mls loss. When these two cases are excluded from the analysis there are four cases with a one cms head circumference.

It is noted that six of the infants were irritable. The likely explanation is that SGH is a painful condition. In addition the median length of stay in the NICU was five days which indicates that it took the infants an appreciable period of time to recover and settle. The painful nature of the condition is understandable. The negative suction pressure applied by the ventouse to the scalp causes a shearing of the galea aponeurotica from the periosteum of the cranial bone (see figure 1). The emissary veins which connect the dural sinuses with the scalp veins are avulsed. This results in bleeding into the subgaleal space. This subgaleal space extends without any anatomical limits across the cranial vault from the orbital ridges to the posterior nuchal line and laterally to the temporalis muscle at the level of the ears. The size of the haemorrhage depends on the extent of emissary veins that are affected.