Introducing Skin Assessment Scoring tool

FIONA DINEEN
NICU
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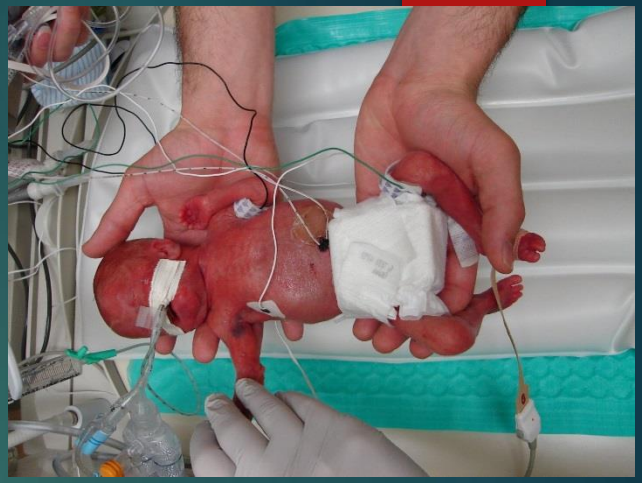
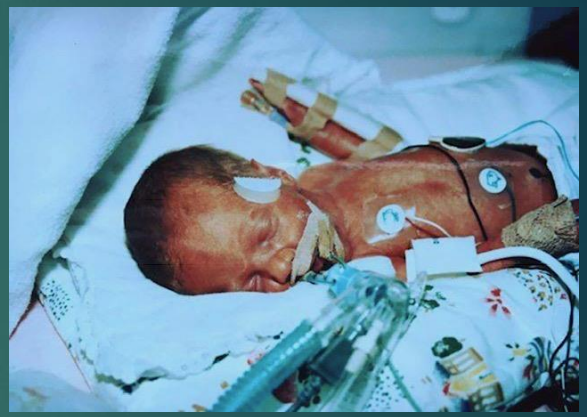
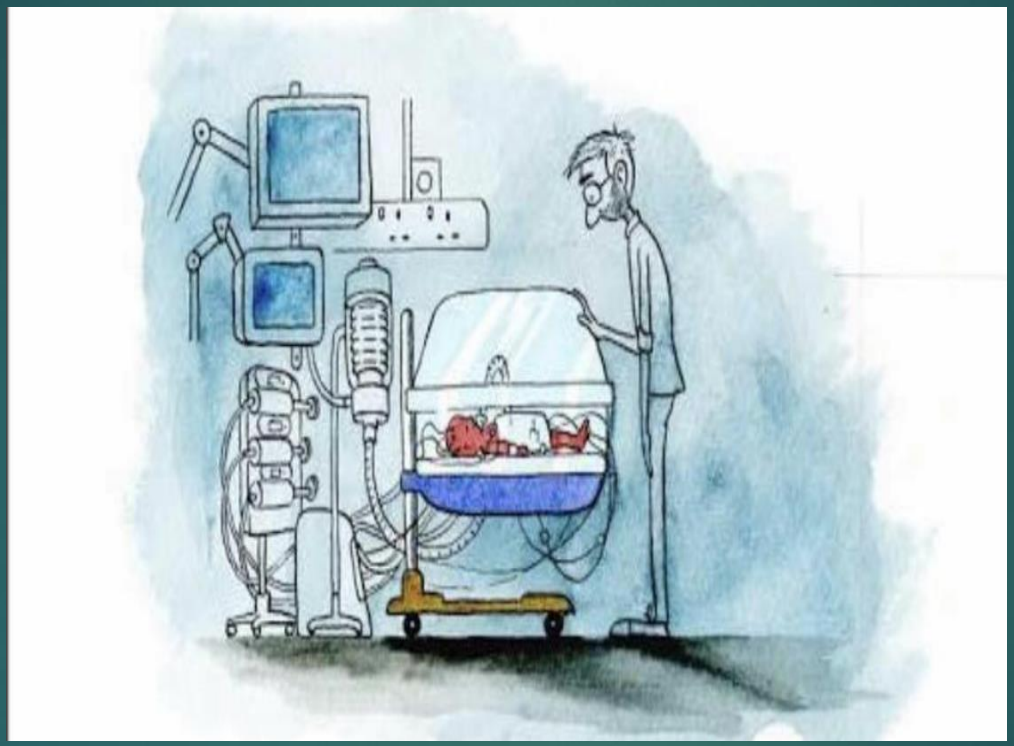


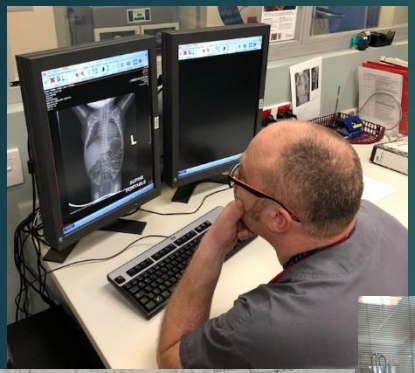




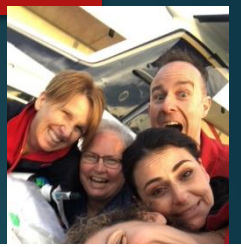
Catchment area

- CCDHB had 3709 births
- Wellington NICU 782 admissions
- 19 babies died

- 80% of the NICU admissions from CCDHB
  - 113 babies were flight retrieval from within our catchment area
  - 8 babies came from other DHBS

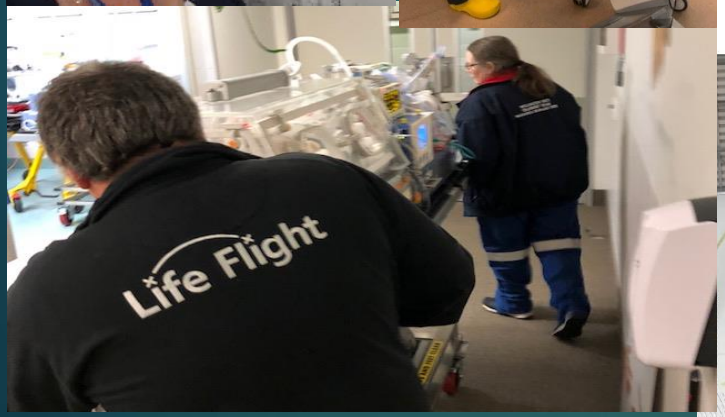






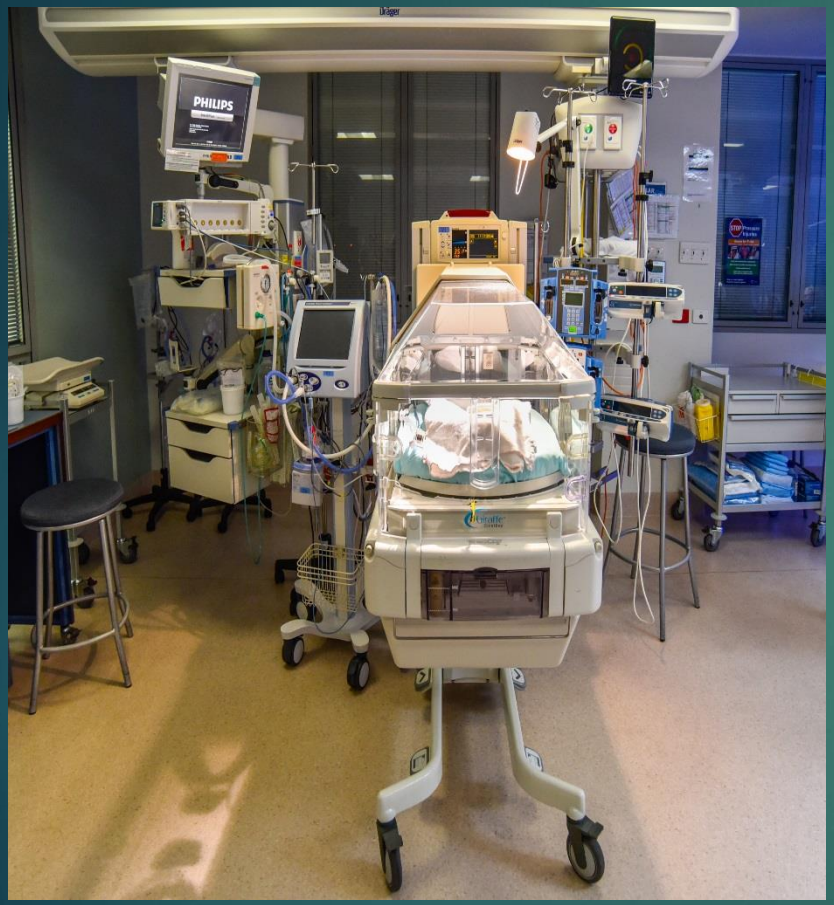





Life Flight



RESCUE


PHILIPS

Introducing New Skin Scoring Tool

Why?

1. Ministry of Health initiative
2. Preventative tool
3. Preservation of skin integrity
4. Assess skin
5. Highlight babies that have skin that could be at possible risk

Children are not little adults

CHILDREN ARE NOT LITTLE ADULTS

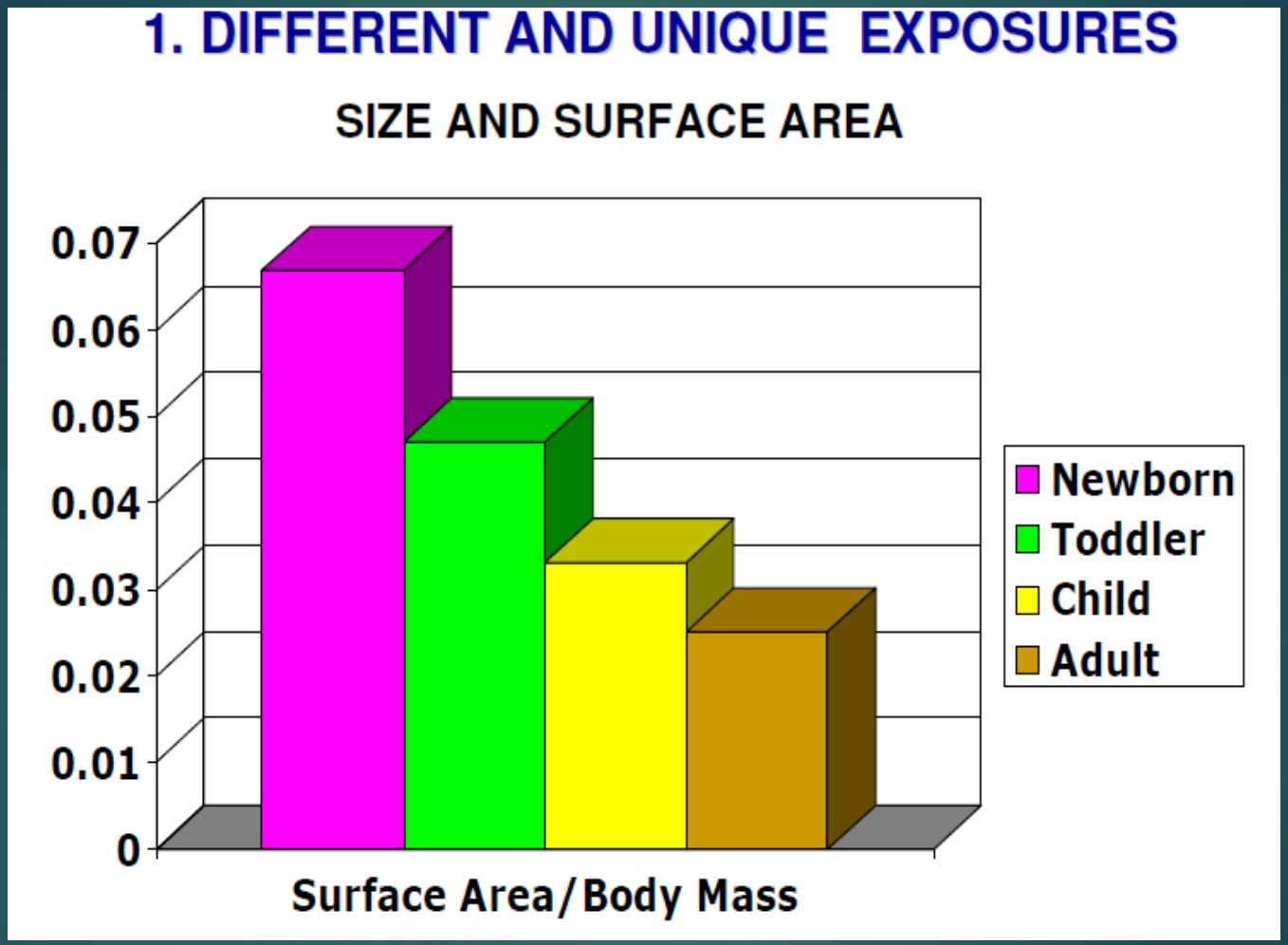
Giotto, National Gallery, Washington DC

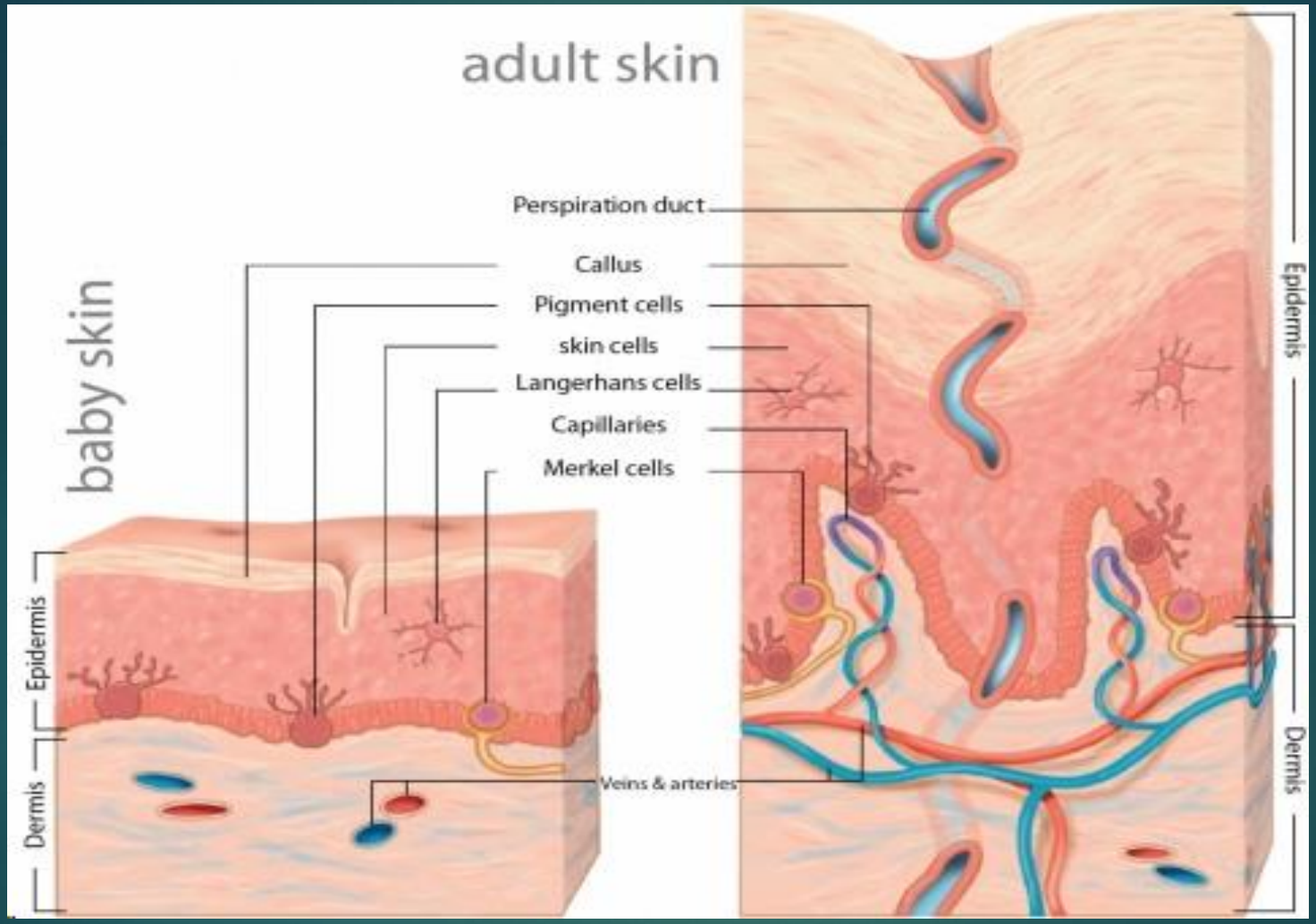
Raphael, National Gallery of Art, Washington, DC

Neonatal Skin

- Neonatal skin accounts for 13% of their body weight compared to 3% of an adult.
- Premature body surface/weight ratio 5 times greater than that of an adult.
- Premature skin – highly vulnerable
- All neonates are prone to developing skin injury or immobility-related pressure injury from medical devices.

1. DIFFERENT AND UNIQUE EXPOSURES




adult skin
baby skin
Perspiration duct
Callus
Pigment cells
skin cells
Langerhans cells
Capillaries
Merkel cells
Epidermis
Dermis
Veins & arteries
Epidermis
Dermis

Aim of skin scoring tool

To achieve a nationally consistent approach.

Allowing DHBs to collect local data preventing skin and pressure injuries

Quality improvement across all DHBs.

Behind the scenes

Over the last 6 months we have carried out monthly audits in Wellington NICU investigating;

- What pressure injury data we already collect
- How it is collected
- To whom it is reported
- How is used to inform quality improvement activities / approaches.

Feedback from this data;

- None or very few skin assessments on admission
- There is no skin assessment area on our level 2 charts.
- Our level 3 charts have a baby figure for assessment; 90% are not completed. However, it is not known if this is because there was no injury or if they were just not filled in.
- Overall Wellington NICU had a poor system for assessing neonates skin.

Our NICU Aims

- Make an assessment tool that works for us.
- Introduce a new neonatal skin scoring tool, the first of its kind in New Zealand & one of very few across the world.
- Highlight neonates with risk factors
- Make staff more aware of their patients and the environmental, treatment or management factors that may affect skin integrity
- Educate staff and parents

Some information

What are the current risk factors, iatrogenic, pressure injury formation in neonatal care?

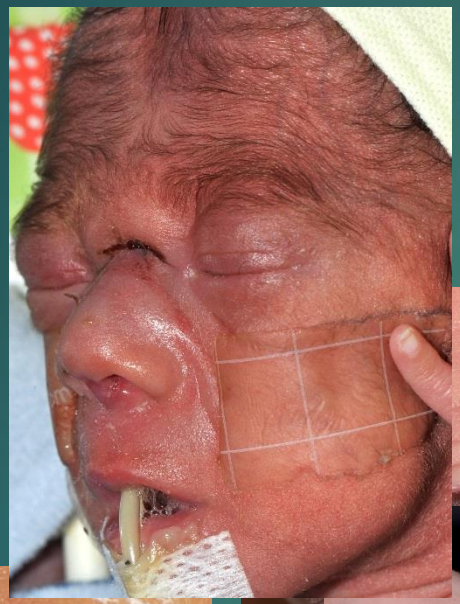
1. Medical Devices

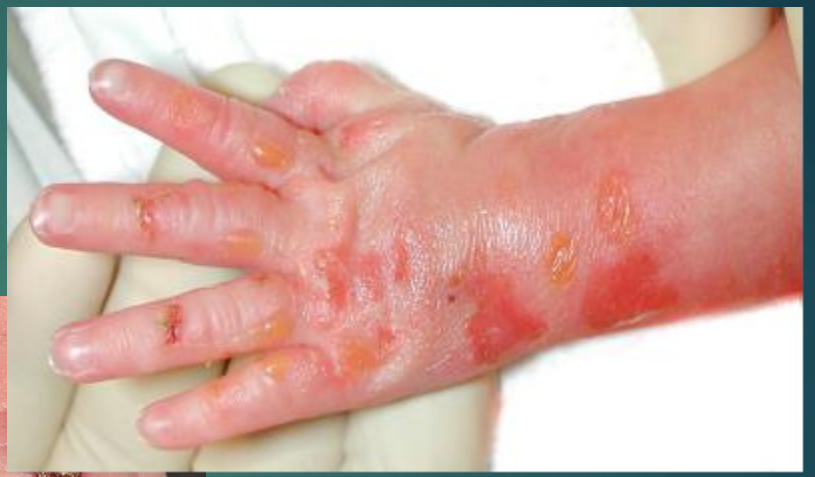
- Respiratory - CPAP/SiPAP
- Invasive ventilators - ETT/Trachy
- Monitoring devices - Sat/temp probes
- Others - cooling blankets, ECG leads, OGT, catheters

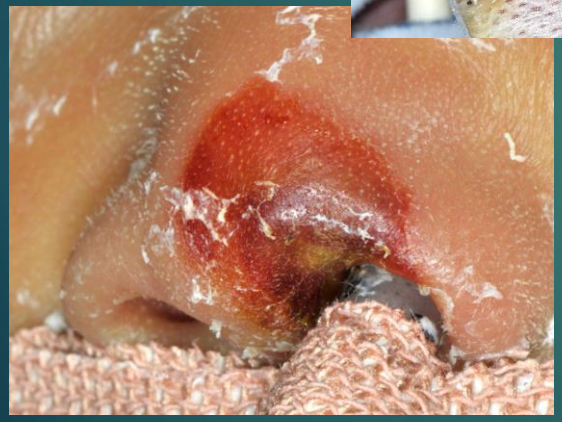
2. Medical conditions to the neonate

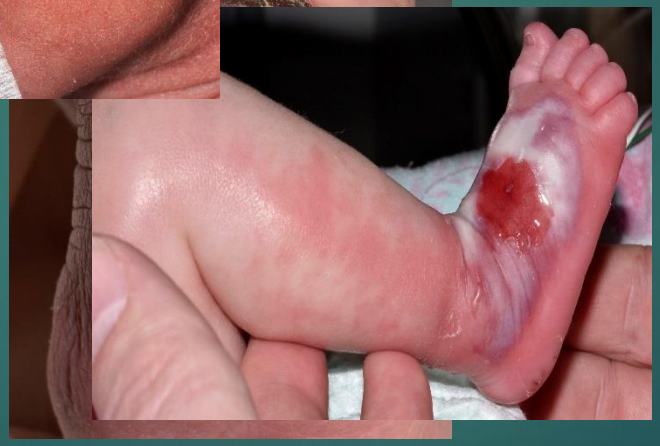
- Immaturity/gestation/ birth Weight
- Skin immaturity
- Immobility
- Comorbidities – resp/cardiovascular instability , support devices, vasopressive meds impaired tissue perfusion.
- Nutrition – low level of albumin, calories, mineral, Hb reduced skin tolerance and impaired wound healing, lack of TPN
- Length of stay
- Care Practice - ? Need to improve assessment, tools specifically for neonates, staff lack of expertise/compliance to skin practise, might not be seen as problem

Injuries







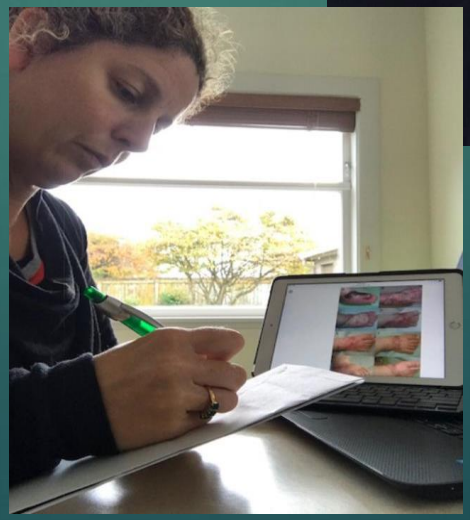


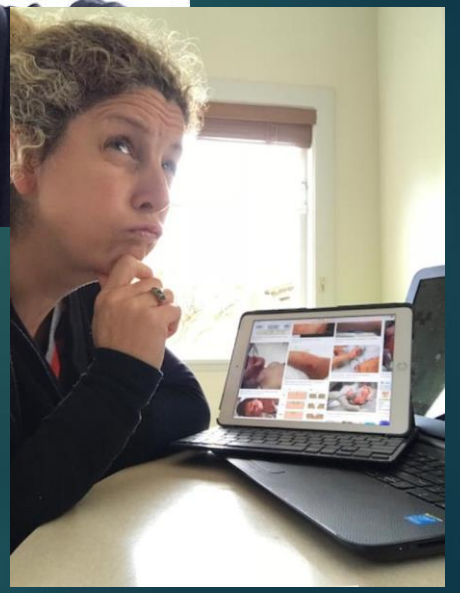
Soooooooo

- The story continues…..

The process in developing the tool

1. I (Fiona Dineen) was assigned this job
2. I was in denial
3. I realised I had to do this
4. Brainstorming process
5. Research what was out there





What I found out there….

Tools for Skin Assessment tools;

- Braden Q Scale (1996)
- Glamorgan Scale
- Neonatal Skin Condition Score (NSCS) –

Evaluates overall skin condition, not a risk assessment

None of the above suited neonates.

- The assessment tools out there, didn't suit neonates. The scores from these tools didn't help NICU babies.

- Do other NZ neonatal units score skin?

- I found Margaret Broom PhD, works in Canberra Hospital, Australia. Has done a lot of work around neonates skin and assessment tool.
  - Why reinvent the wheel.
  - I adapted her tool to suit us.
  - I met with her at PSANZ.

Skin Risk Assessment Score

Date	Time	Score	Comments	Initial

Category	Descriptor	Score
Current gestational age	Neonate <28 weeks Neonate >28 weeks and <33 weeks Neonate >33 weeks and <38 weeks Neonate >38weeks	4 3 2 1
Sensory perception	Diminished level of consciousness/ muscles relaxed/heavily sedated. Oversensitive to noise, light and touch/easily agitated/difficult to calm. Easily agitated but calms with comfort measures/few self-calming behaviours. Age-appropriate responses to stimuli, alert, good self-calming behaviours.	4 3 2 1
Activity/mobility	Does not make the slightest change in position – full assistance required. Makes occasional slight changes in body or extremity position. Makes frequent changes in body or extremity position for example, turns head. Makes major and frequent changes in position, moving all extremities, turns head.	4 3 2 1
Moisture	Constantly moist due to humidity/urine/wound/stoma. Skin often moist – linen needs to be changed once/8hours. Skin occasional moist – need linen change once/12hours. Skin usually dry, routine nappy changes and linen once/day.	4 3 2 1
Respiratory support	Intubated and ventilated +/or CPAP or SiPAP >7 cm H_20. CPAP/ SiPAP >5 cm H_20. High flow and/or low flow. No respiratory support.	4 3 2 1
Skin integrity	Extensive loss of skin integrity/wound/pressure injury/medical devices Localised loss of skin integrity/broken area/ oedema. Minor skin irritation/redness. Skin integrity intact.	4 3 2 1
Blood collection	Many attempts for IV access – cannulation/longline/bloods/arterial line. Venepunctures resulting in large bruise around site of insertion/oedema. Heel pricks >3 in 24hour period or extreme premature 1-3 heel pricks a day. Blood collection weekly.	4 3 2 1
Nutrition	TPN/Lipids/ IV fluids/ NBM/doesn't tolerate feeds/ medications IV TPN/Lipids/ IV fluids/trophic feeds. TPN/Lipid with tube feeds increasing and tolerated. Full gastric feeds.	4 3 2 1

Medical devices – CPAP mask/prongs/saturations probe/ cooling mattress
Medications IV – Fluxocallin/ Vancomycin / 3% Saline/ Dextrose > 12%/ Calcium/ Intropes
Question yourself how often do I need to score the baby in a 12hr shift?

Pressure Injury Prevention & Management Care Package

Risk Score	Category	Assessment and documentation guidelines
≤ 8	Low Risk	1. Continues daily assessment and documentation of skin integrity. 2. Reassess of condition changes. 3. Educate parents/caregivers on pressure prevention
9 - 16	Moderate Risk	**1. Score & Reposition every 6 – 8 hourly.** 2. Reassess and document skin integrity 6 – 8 hourly. 3. Regular change of position 4 – 6 hourly. 4. Maintain adequate hydration, nutrition and oxygenation. 5. Keep skin and dry. 6. Reposition equipment/devices every 2 – 4 hours. 7. Observe IV line hourly for skin integrity, perfusion and placement. 8. Educate parents/caregivers on pressure prevention
17 - 24	High Risk	**1. Score & Reposition neonate and equipment devices at least every 4 - 6 hourly.** 2. Reassess and document every 4 – 6 hourly. 3. Observe IV line hourly for skin integrity, perfusion and placement. 4. Ensure adequate pain relief given to promote movement. 5. Maintain adequate hydration, nutrition and oxygenation. 6. Keep Skin clean and dry. 7. Educate parents/caregivers on pressure prevention 8. Document any existing or new pressure injuries. 9. Get senior nurse to review area of concern, to advise any further treatment required and put plan of care in place. Document. 10. Think - do I need a second person to help with changing devices/position to help prevent discomfort/pain. 11. Score trend care appropriately.
25 - 32	Extreme Risk	**1. Score & reassess, inspect skin at least 2 – 4 hourly, ensuring equipment/objects are not pressing on the skin and document.** 2. Mobilise/change equipment/devices of position 2-3 hourly, if required. 3. Think - do you need to protect head and bony prominences 4. Observe IV/PAL lines hourly for skin integrity, perfusion & placement 5. Ensure adequate pain relief given to promote movement. 6. Maintain adequate hydration, nutrition and oxygenation. 7. Keep skin clean and dry. 8. Ensure adequate pain relief given to promote movement. 9. Educate parents/caregivers on pressure prevention. 10. Document any existing or new pressure injuries. 11. Use appropriate pressure relieving devices such as gel mattress 12. Get senior nurse to review area of concern, to advise any further treatment required and put plan of care in place. Document. 13. Think - do I need a second person to help with changing devices/position to help prevent discomfort/pain 14. Score trend care appropriately.

Thinking process

- I wanted a skin scoring tool that the staff like to use and feel it benefits the babies.

- I didn't want to waste their time.

- The skin scoring tool needed to be trialled.

  The aim;

  Month of May

  - Start to introduce the tool to staff.
  - Get staff to use it.
  - Get staff to give feedback on tool.
  - Use the feedback to improve the tool.

Our Skin Scoring Tool

- At the start of shift, you will score you baby.
- The score will show you what category your baby is in (Low risk – Extreme high risk).
- This will show the bundle of care. You, then have to individualise the care to suit that baby and put it in place.
- If your baby is in the high risk, *you will have to score more often during your shift*, as the skin may deteriorate.
- Your baby may start off at low risk, but skin damage may occur during your shift and at this point you will have to rescore and follow prompts.
- When skin damage happens on a shift rescore.
- Please write on the charts too and show me where improves can happen or information taken out. Email or talk to me.
- Thus hopefully preventing skin breakdown or further breakdown.

To come…

- Looking at the ICU/level 2 charts and finding a place to record the skin score.
- The audit will continue to happen every month.
  - This will show us how the tool is being used.
  - Audit reportable events.
  - Send out an questionnaire to staff to get feedback.

Time Frame

- January 2018 Skin audit started
- April – Introducing to senior nursing team
- May 2018 - Pilot took place + education
- Feedback and updated the scoring tool
- June 2018 – Wellington NICU Official Skin Assessment tool started
- Monthly MoH audits
- April – May 2019 – NICU own audit

QUESTIONS COME FIND ME OR EMAIL ME…