

Wellington Regional Neonatal Intensive Care Unit

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Data on Wellington NICU 23-24 week
gestation infants 2019-2020



General Approach

- Counsel parents with option to not treat if they don't want to
- Majority of parents want to initially resuscitate, counsel about move to palliate if signs of poor prognosis
- Usually ventilate first 3 days for haemodynamic stability
- POCUS to look at haemodynamics and structure of heart, indomethacin
- Frequently ventilate longer (may be day 9-10 before first try off)
- Very rarely use HFV, but do as rescue
- Do use UAC/UVC in all 23 -24 week gestation infants

23 – 25 week gestation infants 2015-20

Gestation	Number	Survival to discharge (%)
22	5	60%
23	32	65%
24	45 (4 outborn)	66%
25	51	86%

Method of delivery

Gestation	NVD	CS
23	19 (4 breech)	4
24	27 (3 breech)	28

Head Ultrasound findings

IVH grade	23/40	24/40
Normal	38%	41.6%
Grade 1-2	33%	39%
Grade 3-4	29% (2/7 WoC)	19.4
Cystic PVL	11% (1/3 WoC)	2.7%

ROP requiring treatment

Gestation	Laser tx	Avastin
23/40	4 (19%)	0
24/40	0	1 (3%)

NEC/perforation

Gestation	percentage
23	5/32
24	7/45 (15.6%)

Chronic lung disease and length of stay

- Many infants discharged to peripheral level 2 units prior to 36/40s gestation but estimate all (or near all) would be on LF O2 or more significant support still at 36/40s
- Average (local) discharge 42-45 weeks gestation (2 extended), lung disease main factor extending admission
- Contributing factors to severe lung disease
 - Infection (VAP) – klebsiella/staph aureus/pseudomonas
 - Pulmonary haemorrhage
 - Gut complications leading to prolonged ventilation
 - Severe IUGR

Long term outcomes 23/40s

- Data on 15 of 21 survivors:
 - 7 Normal
 - 2 mild delays
 - 1 autistic
 - 1 mod isolated language delay
 - 1 more sig language delay
 - 2 mod-severe global delays (est 1.5 years delay at age 4, 1 with CP)

Long term outcomes 24/40s

- Of 45, 30 survived
- Significant number are from peripheral units, 2 went to Finland
- From 12 with accessible outcome notes
 - 9 normal
 - 1 low average on Bailey testing
 - 1 mod delay
 - 1 autistic (but at age 3 could recite word for word any page on any Hairy McCleary book) - fhx

Ongoing focuses for improvement

- Optimising golden hour process including maintaining normothermia
- Infection reduction incl CLABSI
- Respiratory optimization and avoiding VAP
- Cerebral circulation
- Nutrition
- Electrolyte stability.....

