

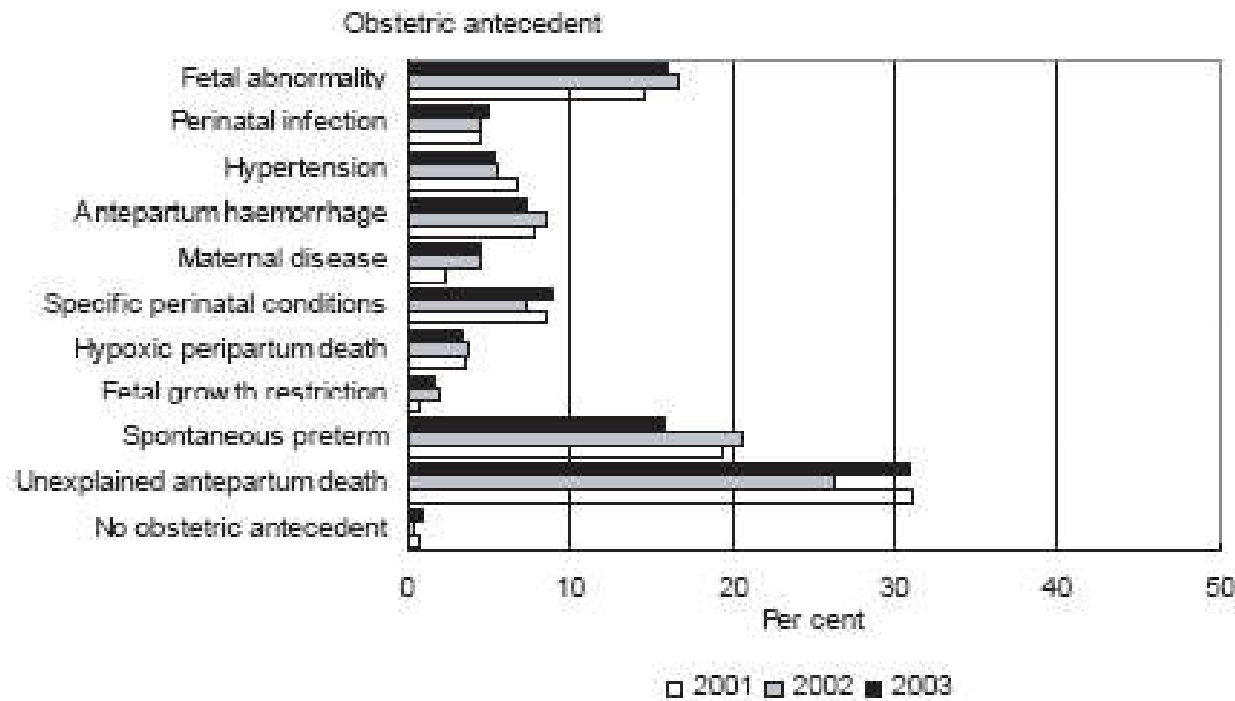
# **Perinatal Mortality**

**Prof. Moustafa A. Abdel-lah**

# Perinatal Deaths NSW 2001-03

**FIGURE 18**

PERINATAL DEATHS BY OBSTETRIC ANTECEDENT AND YEAR, NSW 2001-2003



# Congenital Malformations that Cause Perinatal Death

Obstetric antecedent	Stillbirth		Perinatal outcome Neonatal death		TOTAL	
	No.	%	No.	%	No.	%
1. Fetal abnormality						
Central nervous system	13	3.2	9	4.7	22	3.7
Cardiovascular system	4	1.0	11	5.7	15	2.5
Urinary tract	1	0.2	2	1.0	3	0.5
Gastrointestinal system	0	0.0	3	1.6	3	0.5
Chromosomal	20	5.0	7	3.6	27	4.5
Metabolic	0	0.0	1	0.5	1	0.2
Multiple	9	2.2	7	3.6	16	2.7
Other	3	0.7	5	2.6	8	1.3
Total	50	12.4	45	23.4	95	16.0

# Prematurity as a Cause of Perinatal Death

Obstetric antecedent	Stillbirth		Perinatal outcome Neonatal death		TOTAL	
	No.	%	No.	%	No.	%
9. Spontaneous preterm						
Intact membranes or membrane rupture less than 24 hours:						
with chorioamnionitis	11	2.7	25	13.0	38	8.1
without chorioamnionitis	4	1.0	12	6.3	16	2.7
no placental examination	0	0.0	2	1.0	2	0.3
Membrane rupture 24 hours or more:						
with chorioamnionitis	8	2.2	17	8.9	28	4.4
without chorioamnionitis	1	0.2	1	0.5	2	0.3
no placental examination	3	0.7	4	2.1	7	1.2
Membrane rupture unknown duration:						
with chorioamnionitis	1	0.2	1	0.5	2	0.3
without chorioamnionitis	1	0.2	1	0.5	2	0.3
unspecified placental examination	0	0.0	1	0.5	1	0.2
Total	30	7.4	64	33.3	94	15.8

# Infections that Cause Perinatal Death

Obstetric antecedent	Stillbirth		Perinatal outcome Neonatal death		TOTAL	
	No.	%	No.	%	No.	%
2. Perinatal infection						
Group B Streptococcus	4	1.0	4	2.1	8	1.3
E Coli	0	0.0	3	1.6	3	0.5
Other bacterial	0	0.0	2	1.0	2	0.3
Unspecified bacterial	3	0.7	2	1.0	5	0.8
Cytomegalovirus	0	0.0	1	0.5	1	0.2
Unspecified viral	2	0.5	0	0.0	2	0.3
Unspecified organism	7	1.7	2	1.0	9	1.5
Total	16	4.0	14	7.3	30	5.0

# Hypertensive Causes of Perinatal Death

Obstetric antecedent	Stillbirth		Perinatal outcome Neonatal death		TOTAL	
	No.	%	No.	%	No.	%
3. Hypertension						
Chronic: Essential	3	0.7	1	0.5	4	0.7
Chronic: Secondary eg renal	1	0.2	0	0.0	1	0.2
Chronic: Unspecified	1	0.2	0	0.0	1	0.2
Gestational	6	1.5	0	0.0	6	1.0
Pre-eclampsia	8	2.2	8	4.2	17	2.9
Pre-eclampsia superimposed on pre-existing	2	0.5	0	0.0	2	0.3
Unspecified	1	0.2	0	0.0	1	0.2
Total	23	5.7	9	4.7	32	5.4

4. Antepartum haemorrhage

# Obstetric Haemorrhage that Causes Perinatal Death

Obstetric antecedent	Stillbirth		Perinatal outcome Neonatal death		TOTAL	
	No.	%	No.	%	No.	%
4. Antepartum haemorrhage						
Placental abruption	23	5.7	5	2.8	28	4.7
Placenta praevia	2	0.5	2	1.0	4	0.7
Vasa praevia	2	0.5	1	0.5	3	0.5
Undetermined origin	4	1.0	5	2.8	9	1.5
Total	31	7.7	13	6.8	44	7.4

# Maternal Diseases that Cause Perinatal Death

Obstetric antecedent	Stillbirth		Perinatal outcome Neonatal death		TOTAL	
	No.	%	No.	%	No.	%
5. Maternal disease						
Termination of pregnancy other than for fetal abnormality	4	1.0	1	0.5	5	0.8
Diabetes/gestational diabetes	9	2.2	1	0.5	10	1.7
Maternal injury: Accidental	5	1.2	1	0.5	6	1.0
Other	2	0.5	5	2.8	7	1.2
Total	20	5.0	8	4.2	28	4.7



# Hypoxic Causes of Perinatal Death

Obstetric antecedent	Stillbirth		Perinatal outcome Neonatal death		TOTAL	
	No.	%	No.	%	No.	%
<b>7. Hypoxic peripartum death</b>						
Uterine rupture	2	0.5	0	0.0	2	0.3
Cord prolapse	3	0.7	1	0.5	4	0.7
Shoulder dystocia	1	0.2	0	0.0	1	0.2
Other intrapartum complication	2	0.5	4	2.1	6	1.0
No intrapartum complication	3	0.7	3	1.6	6	1.0
Unspecified	1	0.2	1	0.5	2	0.3
<b>Total</b>	<b>12</b>	<b>3.0</b>	<b>9</b>	<b>4.7</b>	<b>21</b>	<b>3.5</b>
<b>8. Fetal growth restriction</b>						
With evidence of uteroplacental insufficiency	4	1.0	2	1.0	6	1.0
With chronic villitis	1	0.2	0	0.0	1	0.2
Without the above placental pathology	1	0.2	1	0.5	2	0.3
No placental examination	1	0.2	0	0.0	1	0.2
<b>Total</b>	<b>7</b>	<b>1.7</b>	<b>3</b>	<b>1.6</b>	<b>10</b>	<b>1.7</b>

# Other Causes of Perinatal Death

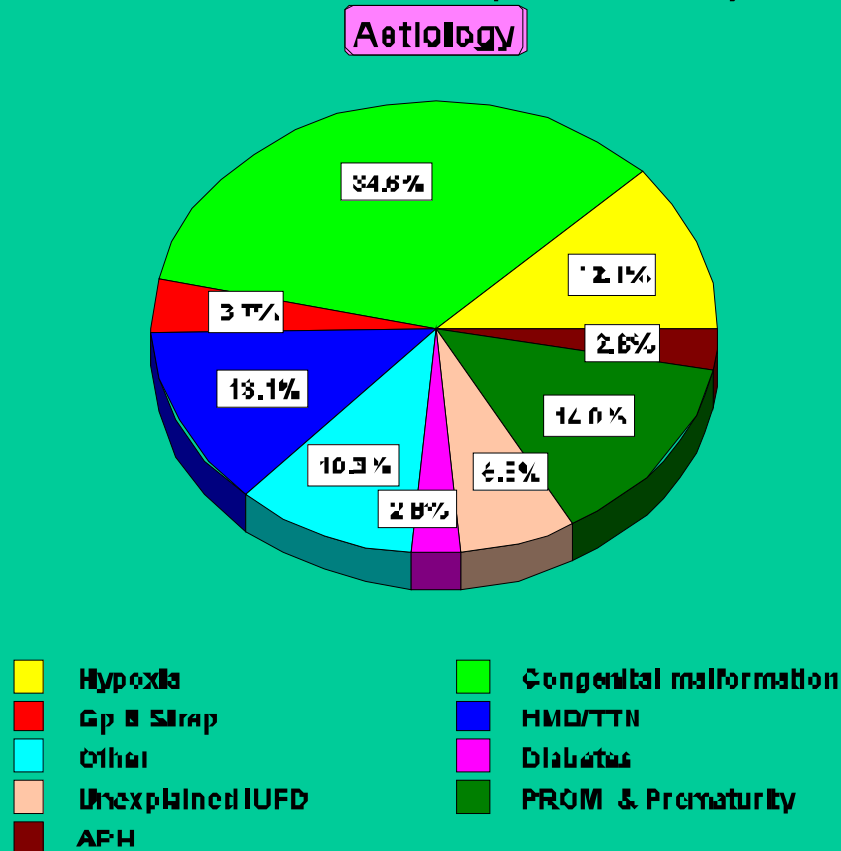
Obstetric antecedent	Stillbirth		Perinatal outcome Neonatal death		TOTAL	
	No.	%	No.	%	No.	%
6. Specific perinatal conditions						
Twin-to-twin transfusion	18	4.0	11	5.7	27	4.5
Fetomaternal haemorrhage	2	0.5	0	0.0	2	0.3
Antepartum cord complications	8	1.5	1	0.5	7	1.2
Uterine abnormality	2	0.5	4	2.1	6	1.0
Birth trauma	0	0.0	1	0.5	1	0.2
Haemolytic disease	1	0.2	0	0.0	1	0.2
Idiopathic hydrops	1	0.2	1	0.5	2	0.3
Other	2	0.5	3	1.6	5	0.8
Total	30	7.4	21	10.9	51	8.8

# Causes of Neonatal Death

Neonatal cause	2001		Year 2002		2003	
	No.	%	No.	%	No.	%
<b>1. Congenital abnormality</b>						
Central nervous system	6	3.2	6	3.0	9	4.7
Cardiovascular system	8	4.2	2	1.0	11	5.7
Urinary tract	5	2.6	2	1.0	3	1.6
Gastrointestinal tract	2	1.1	2	1.0	2	1.0
Chromosomal	3	1.6	8	4.0	3	1.6
Metabolic	0	0.0	1	0.5	0	0.0
Multiple	5	2.6	5	2.5	2	1.0
Unspecified	0	0.0	1	0.5	0	0.0
Other	14	7.4	12	5.9	7	3.6
<b>Total</b>	<b>43</b>	<b>22.8</b>	<b>39</b>	<b>19.3</b>	<b>37</b>	<b>19.3</b>
<b>2. Extreme prematurity</b>						
Not resuscitated	34	18.0	30	19.3	45	23.4
Unsuccessful resuscitation	34	18.0	31	15.3	22	11.5
Resuscitation unspecified or unknown	16	8.5	10	5.0	19	9.9
<b>Total</b>	<b>84</b>	<b>44.4</b>	<b>60</b>	<b>39.6</b>	<b>86</b>	<b>44.8</b>
<b>3. Cardio-respiratory disorders</b>						
Hyaline membrane disease /						
Respiratory distress syndrome	8	4.2	5	2.5	9	3.1
Meconium aspiration syndrome	1	0.5	1	0.5	1	0.5
Primary persistent pulmonary hypertension	2	1.1	2	1.0	1	0.5
Pulmonary hypoplasia	6	3.2	8	4.0	5	2.6
Chronic neonatal lung disease	0	0.0	0	0.0	2	1.0
Other	6	3.2	8	4.0	3	3.1
<b>Total</b>	<b>23</b>	<b>12.2</b>	<b>24</b>	<b>11.9</b>	<b>21</b>	<b>10.9</b>
<b>4. Infection</b>						
Congenital bacterial	2	1.1	7	3.5	3	1.6
Acquired bacterial	4	2.1	8	4.0	9	3.1
Fungal	0	0.0	1	0.5	1	0.5
Unspecified organism	2	1.1	0	0.0	0	0.0
Other	0	0.0	1	0.5	1	0.5
<b>Total</b>	<b>8</b>	<b>4.2</b>	<b>17</b>	<b>8.4</b>	<b>11</b>	<b>5.7</b>
<b>5. Neurological</b>						
Hypoxic ischaemic encephalopathy /						
perinatal asphyxia	8	4.2	16	7.9	13	6.8
Intracranial haemorrhage	10	5.3	11	5.4	10	5.2
Other	0	0.0	0	0.0	1	0.5
<b>Total</b>	<b>18</b>	<b>9.5</b>	<b>27</b>	<b>13.4</b>	<b>24</b>	<b>12.5</b>
<b>6. Gastrointestinal</b>						
Necrotising enterocolitis	2	1.1	5	2.5	5	2.6
Other	1	0.5	1	0.5	1	0.5
<b>Total</b>	<b>3</b>	<b>1.6</b>	<b>6</b>	<b>3.0</b>	<b>6</b>	<b>3.1</b>
<b>7. Other</b>						
SIDS	0	0.0	0	0.0	1	0.5
Trauma	0	0.0	1	0.5	0	0.0
Other	7	3.7	3	1.5	5	2.6
Undetermined / not stated	3	1.6	5	2.5	1	0.5
<b>Total</b>	<b>10</b>	<b>5.3</b>	<b>9</b>	<b>4.5</b>	<b>7</b>	<b>3.6</b>
<b>TOTAL</b>	<b>189</b>	<b>100.0</b>	<b>202</b>	<b>100.0</b>	<b>192</b>	<b>100.0</b>

# Perinatal Mortality & Morbidity at John Hunter Hospital

1998 Perinatal Mortality and Morbidity



# John Hunter Hospital Audit

1998 Perinatal Mortality and Morbidity

Avoidable Factors

