All Wales Clinical Pathway for Normal Labour

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The Evidence Behind the Pathway
Pathway Components

- Advice in early labour
- Support
- Fetal Monitoring
- Normal progress
Advice in Early Labour

Canadian RCT (N=209) early assessment v direct admission
McNiven et al Birth 1998;25(1):5-10

Canadian cohort study (N=3485)

NICE (Draft) pg 402/3
“Limited quality of evidence showed that early assessment by a midwife, compared with early admission to maternity units, appeared to reduce medical intervention rates and increase women’s satisfaction.”

“Women who seek advice ..but who are not in established labour should be offered individualised support and encouraged to remain at or return home.”
Continuous Support for women during childbirth

Women who had continuous, one-to-one support during labour

- **Regional analgesia** (six trials, n = 10048; RR 0.90, 95% CI 0.81 to 0.99);
- **Analgesia** (11 trials, n = 11051; RR 0.87, 95% CI 0.79 to 0.96);
- **Instrumental vaginal birth** (14 trials; n = 12757; RR 0.89, 95% CI 0.83 to 0.96);
- **Caesarean birth** (15 trials, n = 12791; RR 0.90, 95% CI 0.82 to 0.99);
- **Report dissatisfaction with or negative rating of the childbirth experience** (six trials, n = 9824; RR 0.73, 95% CI 0.65 to 0.83);

Cochrane review 15 trials, 12,791 women

**NICE Draft**

"Women should not be left alone in labour."
Electronic Fetal Monitoring

Continuous monitoring is associated with:

- **LSCS** (RR 1.66 [95% CI 1.30 to 2.13])
- **LSCS for abnormal fetal heart rate** (RR 2.45 [95% CI 1.94 to 3.09])
- **Instrumental vaginal birth** (RR 1.26 [95% CI 1.05 to 1.50])
- **Perinatal deaths** (RR 0.85 [95% CI 0.59 to 1.23])
- **Neonatal seizures** (RR 0.50 [95% CI 0.31 to 0.80])

Cochrane Review 2006; 12 Trials N>37,000

NICE (draft) pg 445
“The use of intermittent auscultation of the fetal heart rate is recommended for low risk women in established labour in any birth setting.”
Action Line Placements

UK RCT (N=928) 2, 3 & 4 Hr action lines
Lavender et al Br J Obstet Gynaecol 1998; 105 (9);976-980

South Africa RCT (N=694) 2 Hour v 4 Hour action line
LSCS (RR 0.68 [95% 0.50 to 0.93])
Pattinson et al BJOG 2003;110(5);457-461

NICE Evidence Statement:
“Placing an action line earlier than that recommended by the WHO (at 4 hours), increases interventions without any benefit in outcomes to either mother or baby.”

NICE recommendation (2004):
“A partogram with a 4 hour action line should be used to monitor progress of labour of women in spontaneous labour with an uncomplicated singleton pregnancy at term, because it reduces the likelihood of caesarean section.”
Data Collection

• Data collected for all women commencing the pathway regardless of outcome – presentation all data for 2005 except North Glamorgan – November 2005, NW Wales NHS Trust July – Dec 2005

• All data forwarded to WAG
Women starting pathway as percentage of all births, 2005

- Neath Port Talbot Maternity Unit
- Princess of Wales Hospital
- Llandough Hospital/UHW MLU
- West Wales General Hospital
- Bronglais Hospital
- Glan Clwyd
- Caerphilly Birth Centre
- Neville Hall Hospital
- Royal Gwent Hospital
- Maelor Maternity Unit
- Prince Charles Hospital
- Withybush General Hospital
- Royal Glamorgan
- Powys Birth Centres
- Singleton
NICE guidance (consultation)

- Women should be informed that their first labour, once established, may last up to 18 hours and their second and subsequent labours may last up to 12 hours.
- Cervical dilatation of less than 2cm in 4 hours for first labours.
- Cervical dilatation of less than 2cm in 4 hours, or a slowing in the progress for second or subsequent labours.
Length of 2nd Stage of Labour as Percentage of all women (a), 2005

- Neath Port Talbot Maternity Unit
- Princess of Wales Hospital
- Llandough Hospital/UHW M.L.U
- West Wales General Hospital
- Bronlaias Hospital
- Glan Clwyd
- Caerphilly Birth Centre
- Neville Hall Hospital
- Royal Gwent Hospital
- Maelor Maternity Unit
- Prince Charles Hospital
- Withybush General Hospital
- Royal Glamorgan
- Powys Birth Centres
- Singleton

Lengths of 2nd Stage of Labour:
- 0-30 mins
- 31-60 mins
- 61-90 mins
- 91-120 mins
- 121-150 mins
- 151+ mins
NICE Guidance (consultation)

- Nulliparous women: Birth should take place within 3 hours of the start of the established second stage (referral after 2 hours)
- Parous women: Birth should take place within 2 hours of the start of the second stage (referral after 1 hour)
Women who commence pathway – mode of birth

Mode of Birth, 2005

- Neath Port Talbot Maternity Unit
- Princess of Wales Hospital
- Llandough Hospital/UrW MLU
- West Wales General Hospital
- Bronglais Hospital
- Glan Clwyd
- Caerphilly Birth Centre
- Neville Hall Hospital
- Royal Gwent Hospital
- Maelor Maternity Unit
- Prince Charles Hospital
- Withybush General Hospital
- Royal Glamorgan
- Powys Birth Centres
- Singleton

Legend:
- SVD
- Ventouse
- Forceps
- Caesarean
Reasons for exiting pathway

Reason for Exiting Pathway, 2005

- Abnormal fetal heart rate
- Epidural
- Failure to progress
- Meconium
- Other

Institutions:
- Neath Port Talbot Maternity Unit
- Princess of Wales Hospital
- Llandough Hospital/UHW MLU
- West Wales General Hospital
- Bronglais Hospital
- Glan Clwyd
- Caerphilly Birth Centre
- Neville Hall Hospital
- Royal Gwent Hospital
- Maelor Maternity Unit
- Prince Charles Hospital
- Withybush General Hospital
- Royal Glamorgan
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- Singleton

Legend:
- Abnormal fetal heart rate
- Epidural
- Failure to progress
- Meconium
- Other
Part of pathway exited

Part at which Pathway was exited, 2005

Neath Port Talbot Maternity Unit
Princess of Wales Hospital
Llandough Hospital/UHW MLU
West Wales General Hospital
Bronlais Hospital
Glan Clwyd
Caerphilly Birth Centre
Neville Hall Hospital
Royal Gwent Hospital
Maelor Maternity Unit
Prince Charles Hospital
Withybush General Hospital
Royal Glamorgan
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Part 2
Part 3