



Even geduld...onze online sessie start vrijdag 26 juni om 12:30 uur. Je kan je alvast aanmelden, vul het formulier in door onderstaande link over te nemen of de qr-code te scannen.

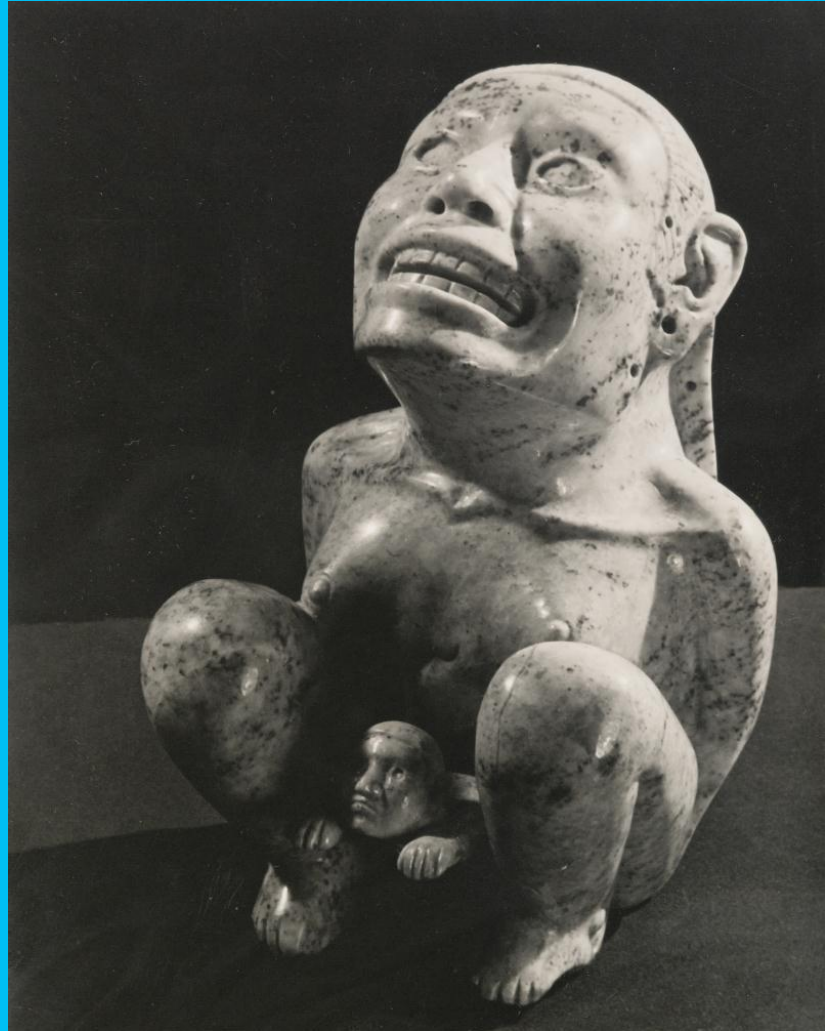
<https://bit.ly/37xNiAZ>

- Dr. Magali Dewulf June 2020

Natural delivery

- Sint-Vincentius Hospital Antwerp

- **Definition**
- **Course of a natural delivery**
- **Studies**
- **Implementation**



DEFINITION NATURAL BIRTH

- **1997 WHO**
- **spontaneous in onset, low-risk at the start of labor and remaining so throughout labor and delivery**
- **the infant is born spontaneously in the vertex position between 37 and 42 completed weeks of pregnancy**
- **after birth mother and infant are in good condition**

CREATING A SATISFACTORY CHILDBIRTH EXPERIENCE

- **personal expectations (birth plan)**
- **the amount of support she receives**
- **quality of caregiver-patient relationship (respect, communication, continuity of care, doula, personal midwife)**
- **involvement in decision making**

THE RESPONSIBILITIES OF THE
HEALTH CARE PROVIDER AT
DELIVERY ARE TO **REDUCE** THE
RISK OF MATERNAL PERINEAL
TRAUMA AND FETAL INJURY
DURING DELIVERY AND PROVIDE
SUPPORT OF THE NEWBORN.
CARE SHOULD BE ADAPTED TO
THE BIRTH GIVING MOTHER.

STAGES OF DELIVERY

first stage

second stage

third stage



— When should a patient be send to the hospital?

- blood loss
- water loss
- pain
- contractions effecting the normal activity and breathing
- loss of movement

ADMISSION IN THE HOSPITAL

in active labor

monitoring, regular contractions

4-5 cm dilatation with documented cervical change

2 hours of observation



INITIAL EXAMINATION

- **labor?**
- **rupture of membranes**
- **blood loss**
- **cervix dilatation and defacement**
- **fetal station**
- **fetal lie**
- **fetal size/pelvic capacity**
- **fetal wellbeing**
- **maternal wellbeing**
- **control of medical file (blood test, gbs test)**
- **control of use of drugs**



MOTHER FRIENDLY SINCE 2005



FETAL MONITORING

- fetal monitoring with telemetry
- central monitoring
- continuous
- internal monitoring with telemetry
- Stan



PAIN CONTROL

- Non-pharmacological approach
- pharmacological approach
- Kalinox
- neuroaxial analgesia



DURING LABOR

vaginal examination

every 2 hours

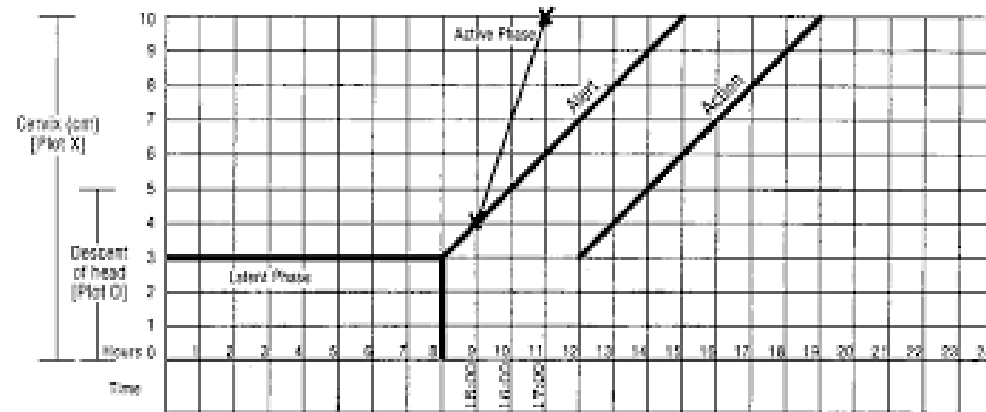
before analgesia

when fetal heart rate abnormalities occur

when patient feels pressure

blood loss

PARTOGRAM



ACTIVE MANAGEMENT OF LABOR

position change
amniotomy-syntocinon

bath
Kalinox

epidural anesthesia

SECOND STAGE OF DELIVERY

change of position

technique

immediate or delayed start

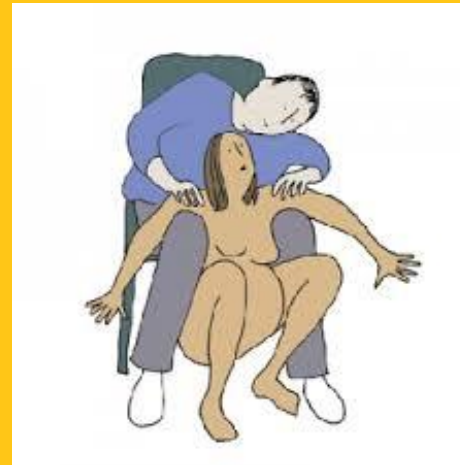
physiological pushing

coaching woman to push

perineal care: hands-on/hands-off

no episiotomy

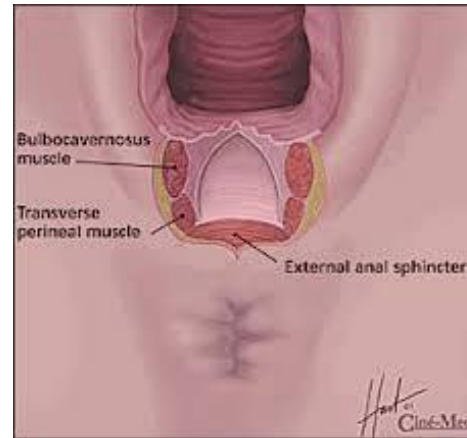
duration of second stage



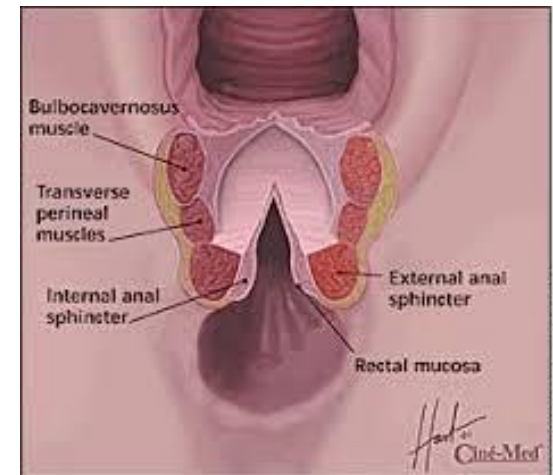
REPAIR OF LACERATION



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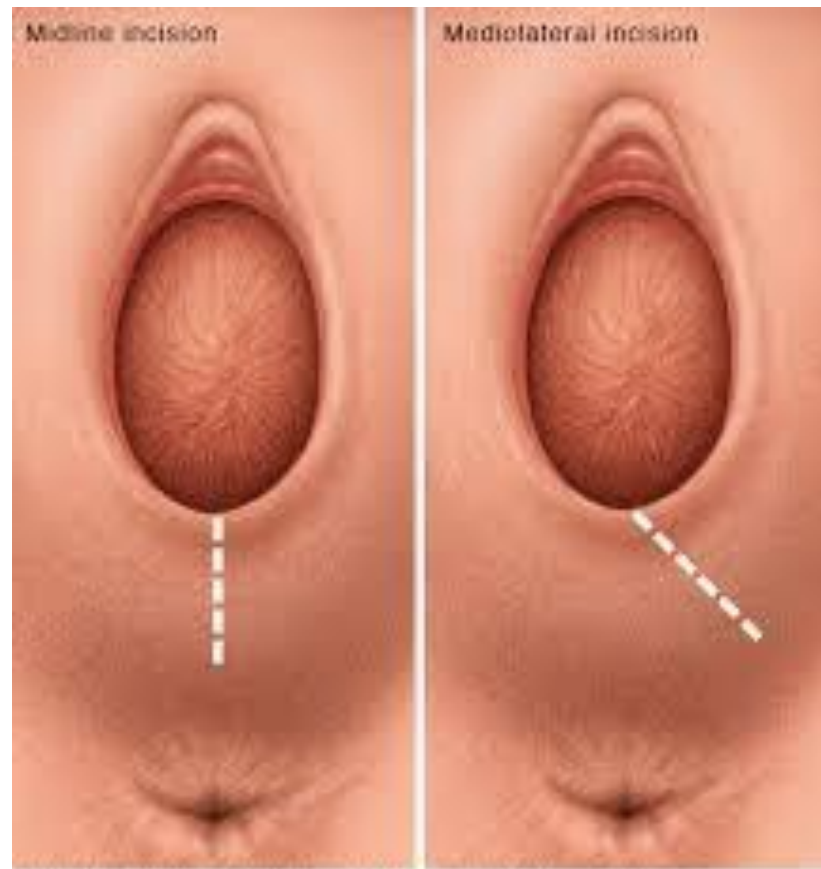


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EPISIOTOMY



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CORD CLAMPING

- slipping the cord over the head and shoulders
- disadvantages:
 - hyperbilirubinemia
 - polycythemia
- advantage:
 - higher iron stores
 - better adaption of heart
 - never clamp before first breath
 - preterm : less intraventricular hemorrhage, less necrotizing enterocolitis
- Timing
 - at least 60 sec
 - physiological cord clamping
 - lotus birth
- cord milking



Apgar Scoring System

Indicator		0 Points	1 Point	2 Points
A	Activity (muscle tone)	Absent	Flexed arms and legs	Active
P	Pulse	Absent	Below 100 bpm	Over 100 bpm
G	Grimace (reflex irritability)	Floppy	Minimal response to stimulation	Prompt response to stimulation
A	Appearance (skin color)	Blue; pale	Pink body, Blue extremities	Pink
R	Respiration	Absent	Slow and irregular	Vigorous cry

THIRD STAGE OF LABOR

- **active management**
- **syntocinon im**
- **cord blood**
- **placental drainage**
- **500 cc**

BABY FRIENDLY



BREAST FEEDING SKIN TO SKIN



Labor Induction versus Expectant Management in Low-Risk Nulliparous

N Engl J Med 2018; 379:513-523

DOI: 10.1056/NEJMoa1800566Women

List of authors.

CONCLUSIONS

Induction of labor at 39 weeks in low-risk nulliparous women did not result in a significantly lower frequency of a composite adverse perinatal outcome, but it did result in a significantly lower frequency of cesarean delivery.

Table 1. Maternal Characteristics at Baseline.*

Characteristic	Induction Group (N = 3062)	Expectant-Management Group (N = 3044)
Age — yr		
Median	24	23
Interquartile range	21–28	20–28
Age ≥35 yr — no. (%)	114 (3.7)	136 (4.5)
Race or ethnic group — no. (%)†		
White	1329 (43.4)	1359 (44.6)
Black	707 (23.1)	699 (23.0)
Asian	87 (2.8)	106 (3.5)
Hispanic	866 (28.3)	808 (26.5)
Other, unknown, or more than one race	73 (2.4)	72 (2.4)
Married or living with a partner — no. (%)	1814 (59.2)	1798 (59.1)
Employment status — no./total no. (%)‡		
Employed full time	1226/3053 (40.2)	1209/3036 (39.8)
Employed part time	341/3053 (11.2)	353/3036 (11.6)
Not employed	1486/3053 (48.7)	1474/3036 (48.6)
Had private insurance for prenatal care — no./total no. (%)§	1404/3061 (45.9)	1335/3044 (43.9)
History of pregnancy loss — no. (%)		
No previous pregnancy loss	2364 (77.2)	2266 (74.4)
Previous pregnancy loss	698 (22.8)	778 (25.6)
Before 13 wk of gestation only	637 (20.8)	698 (22.9)
At 13–19 wk of gestation only	23 (0.8)	40 (1.3)
Both before 13 wk and at 13–19 wk of gestation	14 (0.5)	17 (0.6)
Ectopic or molar pregnancy only	24 (0.8)	21 (0.7)
Uncertain time of pregnancy loss	0	2 (0.1)
Length of gestation at randomization — wk		
Median	38.3	38.3
Interquartile range	38.0–38.6	38.0–38.6
Method of conception — no. (%)		
In vitro fertilization	56 (1.8)	47 (1.5)
Ovulation induction or artificial insemination	30 (1.0)	24 (0.8)
Spontaneous	2976 (97.2)	2973 (97.7)
Smoked cigarettes — no. (%)	224 (7.3)	242 (8.0)
Drank alcohol — no./total no. (%)¶	133/3062 (4.3)	107/3043 (3.5)
BMI at randomization		
Median	30.5	30.3
Interquartile range	27.3–34.6	27.3–35.0
BMI ≥30 — no./total no. (%)	1632/3049 (53.5)	1575/3027 (52.0)
Modified Bishop score at randomization**		
Median	4	4
Interquartile range	2–5	2–5
Score <5 — no./total no. (%)**	1919/3062 (62.7)	1954/3042 (64.2)

* There were no significant differences between the groups except for previous pregnancy loss, which was less common in the induction group (P=0.01). Percentages may not total 100 because of rounding.

† Race or ethnic group was reported by the participant.

‡ Data are missing for 17 women (9 in the induction group and 8 in the expectant-management group).

§ Data are missing for 1 woman in the induction group.

¶ Data are missing for 1 woman in the expectant-management group.

|| The body-mass index (BMI) is the weight in kilograms divided by the square of the height in meters. Data are missing for 30 women (13 in the induction group and 17 in the expectant-management group).

** Modified Bishop scores range from 0 to 12, with lower scores associated with a higher chance of cesarean delivery. Data are missing for 2 women in the expectant-management group.

Table 3. Secondary Outcomes.*

Outcome	Induction Group (N=3059)	Expectant- Management Group (N=3037)	Relative Risk (95% CI)	P Value
Neonatal				
Transfusion of blood products — no. (%)	4 (0.1)	5 (0.2)	0.79 (0.20–2.74)	0.75
Hyperbilirubinemia — no. (%)†	145 (4.7)	142 (4.7)	1.01 (0.81–1.27)	0.91
Hypoglycemia — no. (%)	37 (1.2)	35 (1.2)	1.05 (0.66–1.66)	0.84
Admission to neonatal intermediate or intensive care unit — no. (%)	358 (11.7)	394 (13.0)	0.90 (0.79–1.03)	0.13
Maternal				
Cesarean delivery — no. (%)	569 (18.6)	674 (22.2)	0.84 (0.76–0.93)	<0.001‡
Operative vaginal delivery — no. (%)	222 (7.3)	258 (8.5)	0.85 (0.72–1.01)	0.07
Hypertensive disorder of pregnancy — no. (%)	277 (9.1)	427 (14.1)	0.64 (0.56–0.74)	<0.001‡
Chorioamnionitis — no. (%)	407 (13.3)	429 (14.1)	0.94 (0.83–1.07)	0.35
Third-degree or fourth-degree perineal laceration — no. (%)	103 (3.4)	89 (2.9)	1.15 (0.87–1.52)	0.33
Postpartum hemorrhage — no. (%)	142 (4.6)	137 (4.5)	1.03 (0.82–1.29)	0.81
Postpartum infection — no. (%)	50 (1.6)	65 (2.1)	0.76 (0.53–1.10)	0.15
Admission to ICU — no. (%)	4 (0.1)	8 (0.3)	0.50 (0.13–1.55)	0.26
Death — no. (%)	0	0	NA	NA
Median duration of stay in labor and delivery unit (IQR) — hr§	20 (13–28)	14 (9–20)		<0.001‡
Postpartum hospital stay — no. (%)				0.01‡¶
<2 days	322 (10.5)	317 (10.4)		
2 days	2191 (71.6)	2084 (68.6)		
3 days	399 (13.0)	452 (14.9)		
4 days	130 (4.2)	166 (5.5)		
>4 days	17 (0.6)	18 (0.6)		
Median scores on Labor Agency Scale (IQR)¶				
At 6–96 hr after delivery	168 (148–183)	164 (143–181)		<0.001‡
At 4–8 wk after delivery	176 (157–189)	174 (154–188)		0.01‡
Median labor pain scores (IQR)**				
Worst score	8 (7–10)	9 (8–10)		<0.001‡
Overall score	7 (5–8)	7 (5–9)		<0.001‡

* Additional secondary outcomes are provided in the Supplementary Appendix. Exact confidence intervals and P values are provided for rare outcomes. The P values and 95% confidence intervals presented have not been adjusted for multiple comparisons of the secondary outcomes. ICU denotes intensive care unit, IQR interquartile range, and NA not applicable.

† Data are missing for 4 women (1 in the induction group and 3 in the expectant-management group).

‡ The P value remained significant after controlling for multiple comparisons with the false discovery rate method.

§ The totals exclude 7 women who delivered before admission to the labor and delivery unit. Data are missing for 2 women (1 in each group).

¶ The variables were compared with the Cochran–Armitage trend test.

|| Scores on the Labor Agency Scale range from 29 to 203, with higher scores indicating greater perceived control during childbirth; included are women who had spontaneous labor, labor that started spontaneously but then was augmented, or induced labor. Data for 6 to 96 hours after delivery are missing for 288 women (127 in the induction group and 161 in the expectant-management group); data for 4 to 8 weeks after delivery are missing for 736 women (349 in the induction group and 387 in the expectant-management group).

** Labor pain was scored according to a 10-point Likert scale, with higher scores indicating greater pain; included are women who had spontaneous labor, labor that started spontaneously but then was augmented, or induced labor. Data on worst score are missing for 274 women (110 in the induction group and 164 in the expectant-management group); data on overall score are missing for 275 women (110 in the induction group and 165 in the expectant-management group).

The impact of induction of labor at 39 weeks in low-risk women on the incidence of stillbirth

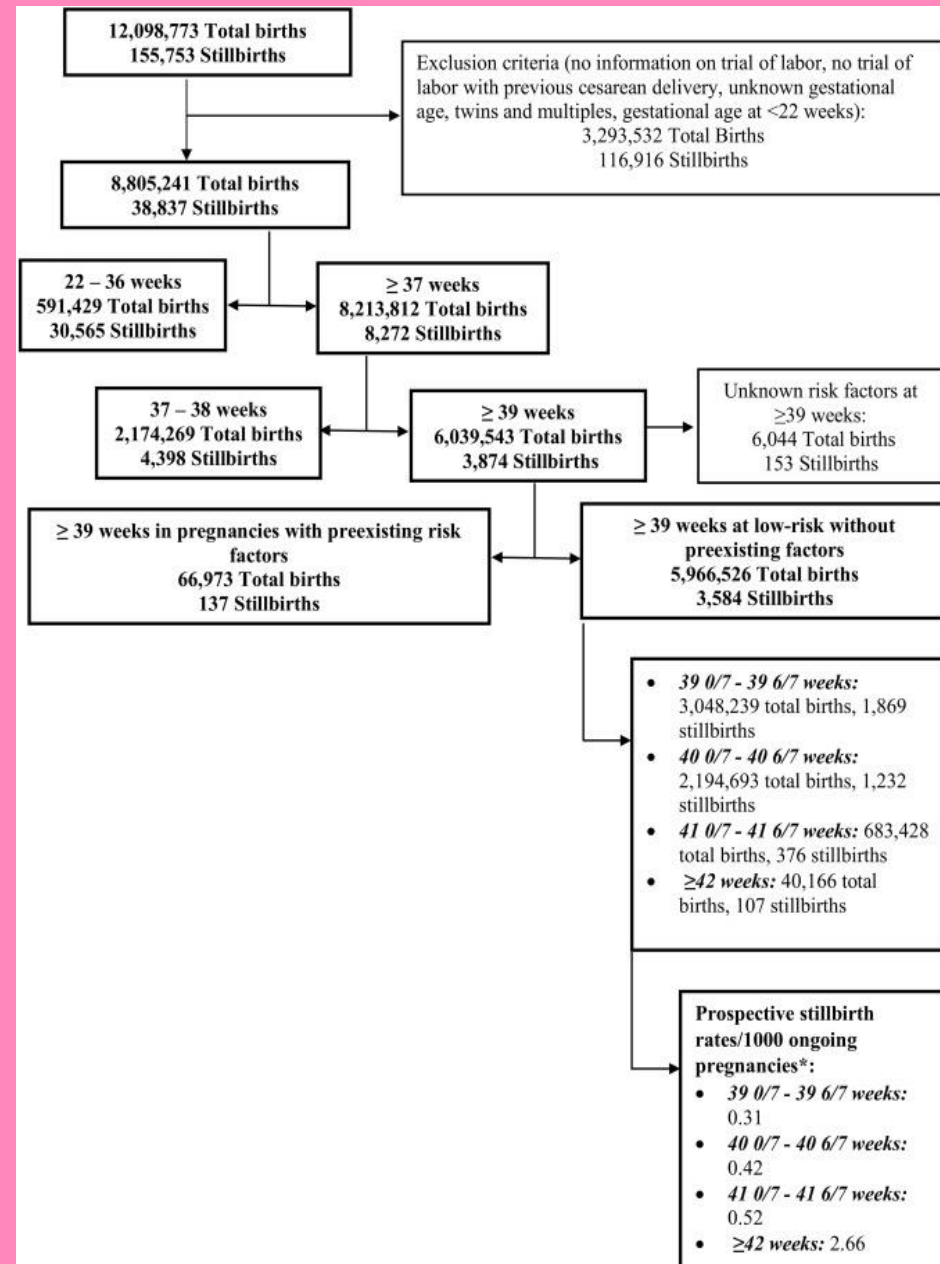
• Gaia Po', MD
Emily A. Oliver, MD
Uma M. Reddy, MD
Robert M. Silver, MD
Vincenzo Berghella, MD

Published: September 20, 2019 DOI: <https://doi.org/10.1016/j.ajog.2019.09.032>

Conclusion

The stillbirth rate in low-risk women at ≥ 39 weeks is 0.60 per 1000 births. Induction of labor in low-risk women between 39 0/7 weeks and 39 4/7 weeks would potentially prevent 833 stillbirths per year in the United States alone. The number of inductions needed to **prevent 1 stillbirth is approximately 1675**.

Compared to expectant management, induction of labor between 39 0/7 weeks and 39 4/7 weeks in low-risk women has been previously associated with **a lower risk of cesarean delivery and hypertensive disorders** of pregnancy.^{1,2} On a population level, our study shows in addition that this policy could prevent 883 stillbirths per year in the United States alone. Our data may help low-risk women and their clinicians to make decisions regarding fetal benefits of induction of labor between 39 0/7 weeks and 39 4/7 weeks.



* Prospective stillbirth rates/1000 ongoing pregnancies: ratio of the number of stillbirths at that specific gestational age to ongoing pregnancies at that gestational age or greater.

PERINATALE STERFTE 2018

1. OVERZICHT FOETALE STERFTE

Tabel 6: Foetale sterfte.

Part. Nr.	Par.	Drzw.	Ligging	Wijze verlos.	Geboorte- gewicht	Geslacht
0199/	1	22	OccAnt	Spontaan	500	meisje
0220/	3	40	OccAnt	Spontaan	3515	meisje
0250/	2	32	OccAnt	Spontaan	1200	meisje
0264/	1	31	OccAnt	Spontaan	1600	jongen
0302/	4	24	OccAnt	Spontaan	780	jongen
0459/	2	36	OccAnt	Spontaan	2570	meisje
0574/	1	31	OccAnt	Sectio Secundair	1600	jongen
0588/	1	38	OccAnt	Spontaan	2930	meisje
0607/	2	24	OccAnt	Spontaan	525	meisje
0644/	1	38	Stuit	Ass. St.	3220	jongen
0891/	4	35	OccAnt	Sectio Primair	1940	jongen
0916/	2	29	OccAnt	Spontaan	900	jongen
0932/	2	24	Stuit	Spontaan	665	meisje
1066/	1	34	OccAnt	Sectio Secundair	2350	jongen
1345/	7	33	OccAnt	Spontaan	1095	meisje
1535/	2	29	OccAnt	Sectio Secundair	1095	jongen

HOW ARE WE DOING?

Tabel 19: Profielentabel 2018.

	Vlaanderen		uw ziekenhuis		rangplaats
	%	N	%	N	
verlossingen (v)	-	62 812	-	1699	-
geboorten (g)	-	63 836	-	1713	-
eenlingen	-	61 788	-	1985	-
meerlingen (geboorten)	-	2 048	-	28	-
zwangerschapsduur (v) < 37 weken	7.6	4 789	5.7	97	14
inductie (v)	25.2	15 826	11.8	200	1
epidurale (v)	69.7	43 769	51.3	871	5
wijze van verlossing					
spontaan (g)	68.6	43 800	72.0	1233	44
vacuümextractie / forceps (g)	9.1	5 830	8.8	150	28
sectio (v)	21.2	13 320	19.0	322	18
stuitligging (g) abdominaal	90.6	2 758	76.3	45	5
laag geboortegewicht (g) < 2500 g	5.9	4 412	4.2	72	8
foetale sterfte (‰) (g)	4.86	310	9.34	16	57
vroeg-neonatale sterfte (‰)	1.73	110	0.59	1	30
perinatale sterfte (‰) (g)	6.58	420	9.92	17	55

EFFECT OF STUDIES ON OUR WAY OF WORKING

- **probably
augmentation of
induction rate**

**PRIMUM NON
NOCERE**

CONCLUSION

A sense of personal control over decision-making processes in labor correlates with maternal satisfaction.



Q&A

Vragen kan u stellen rechts hiervan in het 'vragen en antwoorden' gedeelte

Stuitbevallingen

Referentiecentrum

GZA St. Vincentius Antwerpen

Stuitenreferentiecentrum

- Inleiding
 - Beroepsgroep
 - Superspecialisatie
 - Kwaliteit van geneeskunde
 - Groter plaatje : GZA Antwerpen en netwerken

Stuitenreferentiecentrum

- Historisch ?
 - Stuitligging altijd al slechte reputatie
 - Hannah et al. 2000 : einde stuitbevallingen
 - Contra :
 - Populatiebias (inclusie preterme partussen)
 - Grote interinstitutionele verschillen in inclusie & zorg
 - Grote proportie recruterings perpartaal

Stuitenreferentiecentrum

- Stand van zaken I?
 - 3% v/d kinderen ligt in stuit à term (SPE 2018 : 4%)
 - >90% van de éénling stuiten wordt geboren via SC (SPE 2018 : 93,3%, 2/3 primaire SC), ongeacht de pariteit (SPE 2018 : nullip. 95%, multipara 90% SC)
 - Onjuiste counseling door niet / onvoldoende opgeleide obstetrici (VVOG enquête 2018 : 33% SC zonder counseling)
 - Onvoldoende expertise(VVOG 2018 ; 55% v/d SC)

Stuitenreferentiecentrum

- Stand van zaken II ?
 - Resultaat :
 - Versnippering v/d stuitbevallingen (wie ze doet doet er te weinig)
 - Iedereen doet maar wat (vooral SC), geen uniformiteit, geen vast beleid
 - Geen opbouw ervaring / expertise

Stuitenreferentiecentrum

- Doel I?

Algemeen

- Centralisatie van de stuitbevallingen (niche)
 - In een expertisecentrum
- Een juiste patiëntenselectie voor een stuitbevalling
 - Volgens de huidige en meest recente EBM principes
- Aantal onnodige SC verminderen

Stuitenreferentiecentrum

- Doel II?

De patiënte en haar rechten

- Iedere patiënte met een baby in stuitligging de mogelijkheid geven om correct geïnformeerd voor een vaginale partus te kiezen
- Juiste counseling aanbieden

Stuitenreferentiecentrum

- Doel III?

De Obstetricus

Verbetering kwaliteit van verloskunde

- Opleidingen / teaching / symposia
- (Medico-legale) expertise opbouwen
- Stuitnetwerken (landelijk – Europees)
- (Gerandomiseerde) multicentrische studies

Stuitenreferentiecentrum

- Middelen?
 - Vast protocol (gebaseerd op de meest recente literatuur)
 - Getraind team obstetrici en vroedvrouwen (alle Gynaecologen verrichten stuitbevallingen)
 - Regelmatige teaching (hands on – oefenmodellen / casustrainingen - bespreking)

Stuitenreferentiecentrum

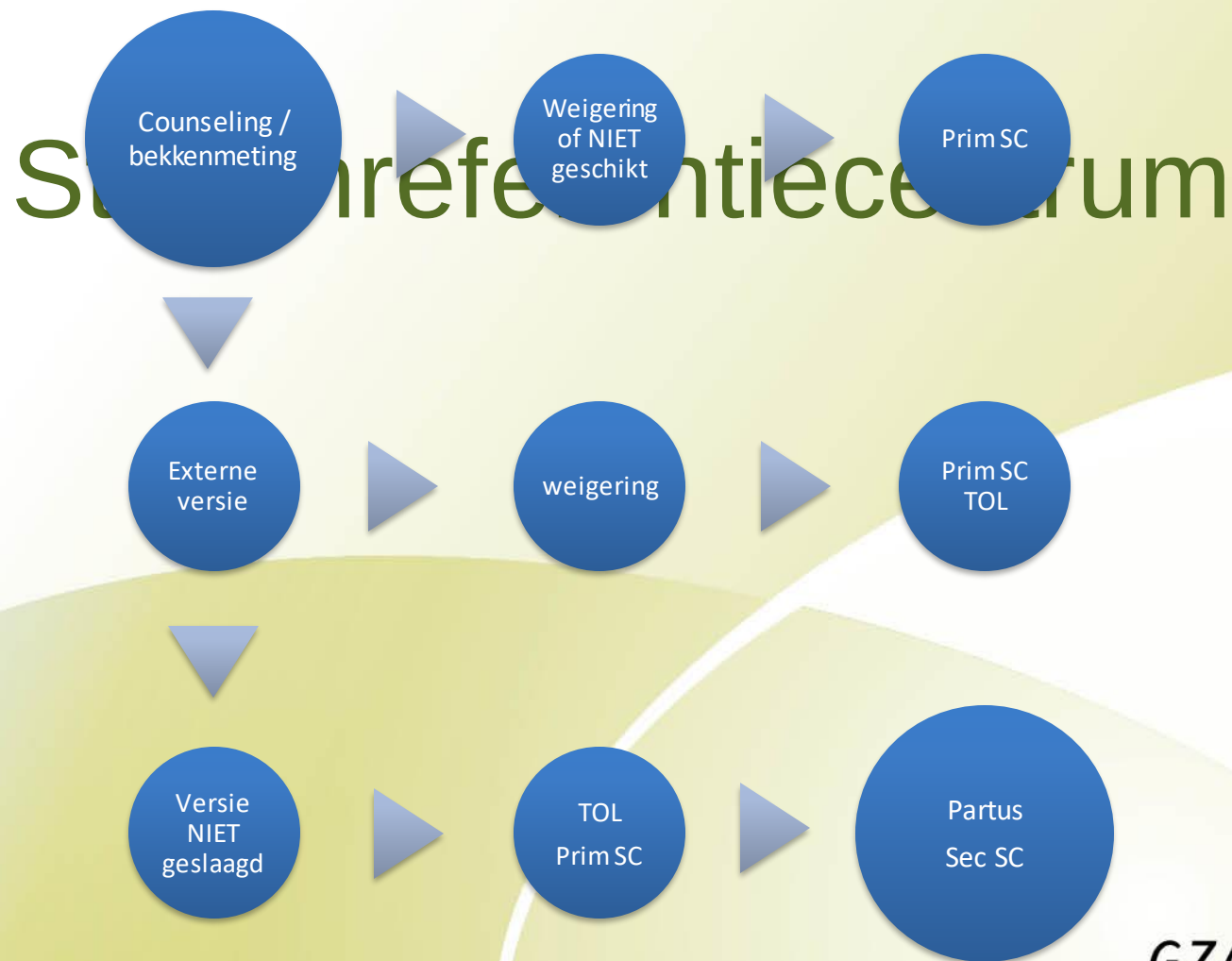
- Practisch I?
 - Doorverwijzing van elke patiënte met stuitligging indien geïnteresseerd en/of gemotiveerd om vaginaal te bevallen
 - Bij voorkeur rond 35-36 wkn
 - Éénling, maar ook meerlingen (hoofd/stuit)

Stuitenreferentiecentrum

- Practisch II?
 - Counseling
 - Bekkenmeting - MRI
 - Primipara
 - Multipara na SC of partus <35 wkn
 - Bespreking en planning externe versie

Stuitenreferentiecentrum

- Practisch III?
- Na counseling :



Stuitenreferentiecentrum

- Exclusiecriteria
 - Maternele :
 - Wenst expliciet GEEN vaginale partus (IC)
 - Slechte en /of moeilijke communicatie (taalbarrière)
 - Discordantie tussen beide partners
 - MRI : nauw bekken

Stuitenreferentiecentrum

- Exclusiecriteria
 - Foetale :
 - Malformaties
 - Termijn <32 wkn
 - IUGR, groei <p10 en/of gewicht <2500 gr
 - SGA met belangrijke HC/AC disproportie
 - Pathologische CTG / doppler

Stuitenreferentiecentrum

- Exclusiecriteria
 - Uteriene :
 - Uterus anomalieën
 - Voorafgaande uteriene (fundus)heelkunde
 - Myoma previa

Stuitenreferentiecentrum

- Exclusiecriteria
 - Placentaire :
 - Placenta previa

Stuitenreferentiecentrum

- Strikt Protocol
 - Voor gynaecologen & vroedvrouwen
 - Team (pediater / anesthesist / OK) stand by
- Intake
- Counseling
- opname
- Arbeid
- partus

Stuitenreferentiecentrum

- Verloop :
 - Opname
 - Ervaren obstetricus standby
 - Team in standby
 - Echo en VT evaluatie
 - Waakinfuus
 - Continue monitoring

Stuitenreferentiecentrum

- Realiteit :
 - 30% kans op secundaire sectio
 - Slechte cortonen
 - Niet vorderende arbeid

Stuitenreferentiecentrum

- Toekomst en planning
 - Stuitenreferentiecentrum per provincie
 - stuitnetwerk
 - Steun van de Universiteiten
 - Steun en richtlijnen van VVOG
 - Presentatie
 - Antwerpse gynaecologen
 - Huisartsen via nieuwsbrief
 - Groot publiek via persbericht

Stuitenreferentiecentrum

Dank u voor de aandacht
Vragen kan u in rechts hiervan stellen in het 'vraag en antwoord' luik.



Q&A



Dank je voor je deelname; je kan een evaluatieformulier invullen door onderstaande link te over te nemen of de qr-code te scannen.

<https://bit.ly/2YEM0oz>