Instrumentel Vaginal forløsning

Revision af guideline
DSOG Guidelinemøde 2026

ARBEJDSGRUPPENS MEDLEMMER

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AGENDA

- Afgrænsning af guideline
- Baggrund og incidens
- PICO 1: Antal træk, varighed og når cup'en springer af
- PICO 2: Præmaturitet
- PICO 3: Profylaktisk antibiotika
- Diskussion

Afgrænsning af emnet

Tidligere Guideline fra 2015

Indhold:
Procedure beskrivelse af cup og tang
Simulationstræning
Patient information
Tidsgrænser for fødslen 2 stadie
Forebyggelsen sphincterruptur
Intrapartum ultralyd

Revideret Instrumentel forløsning 2026
Procedure beskrivelsen er uændret
Opdateret afsnit om antal træk, varighed, når cuppen slipper, præmaturitet, uregelmæssig baghoved, antitiobika og træning.

Dystoci guideline 2015

Forebyggelsen sphincterruptur 2026

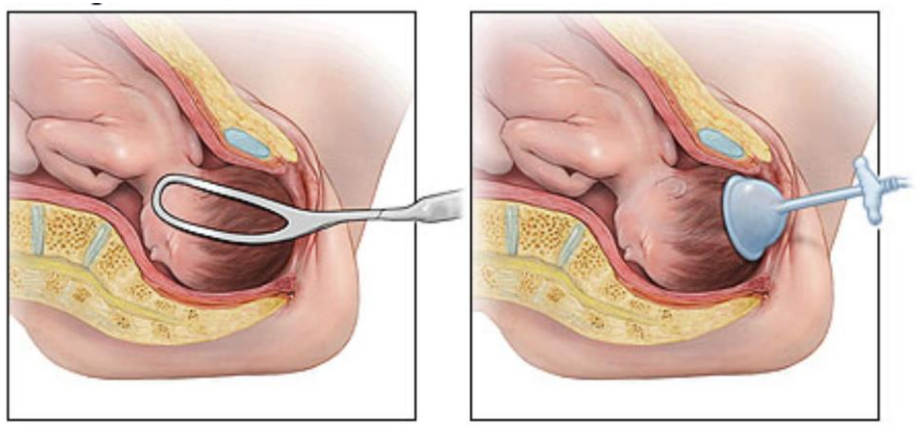
Intrapartum ultralyd 2020

Formuleringer i guidelinen – den svære balance

Evidens

Anbefalet sprogbrug

BAGGRUND



I Danmark assisteres 7 % af alle fødsler med vakuumekstraktion, svarende til 3.800 børn årligt

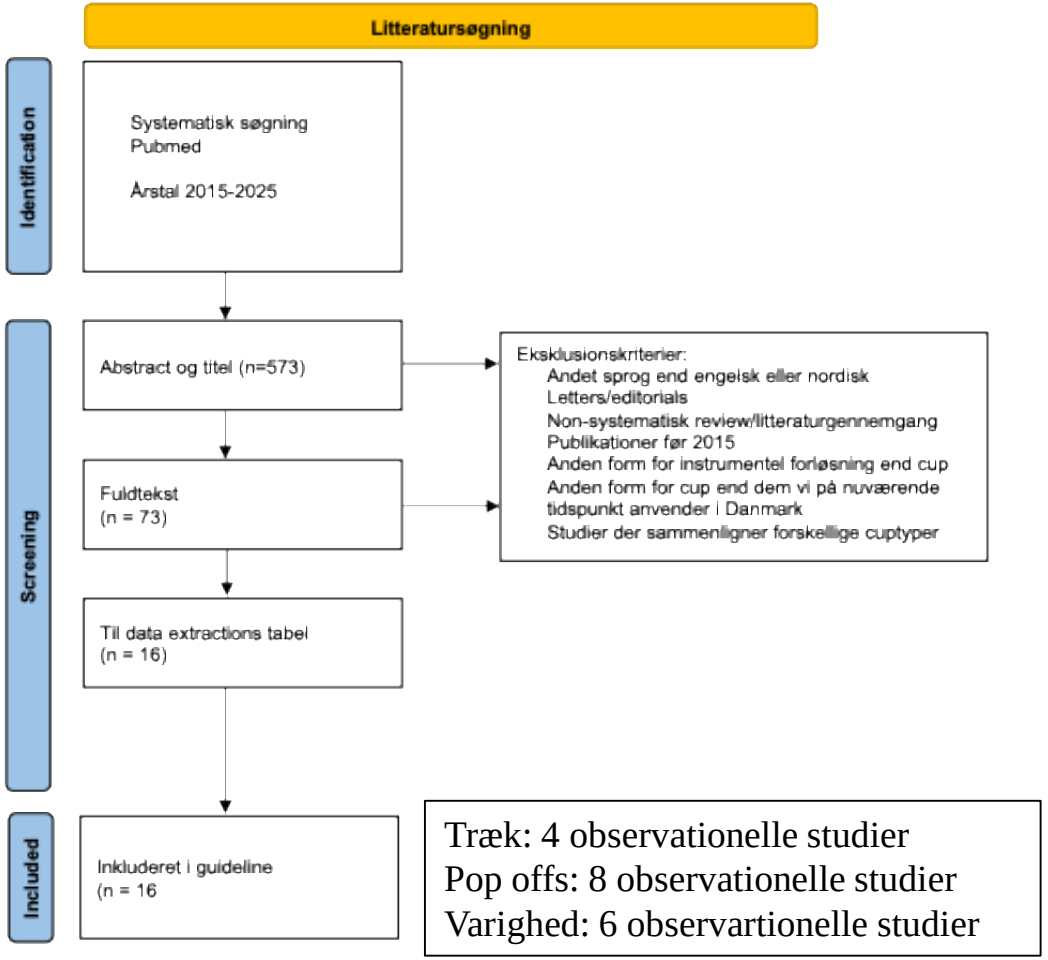
Frekvensen af instrumentel forløsning med vakuumekstraktion stabil på ca. 12 % blandt førstegangsfødende og 2 % blandt flergangsfødende.

Frustran vakuumekstraktion estimeres til ca. 7-10 % hos førstegangsfødende.

Brugen af tang er sjælden og anvendes ca. 5-10 gange årligt i Danmark

PICO 1: Antal træk, varighed og når cup'en springer af

PICO:
P (Population): Kvinder der føder vaginalt cupanlæggelse
I (Intervention): Mange træk, mange pop offs, lang varighed
C (Comparison): Få træk, få eller ingen pop offs, kort varighed
O (Outcome): Neonatale og/eller maternelle komplikationer



PICO 1: Antal træk

Resume af evidens	***Evidensgrad***
Flere vesynkrone træk øger sandsynligvis risikoen for neonatale komplikationer	2
Ved mere end 5 træk er der muligvis en øget risiko for neonatale skader	3
Det er usikkert om antallet af træk øger risikoen for maternelle komplikationer (postpartum blødning, blodtransfusion og sphincterruptur)	4

PICO 1: Antal træk

THE JOURNAL OF MATERNAL-FETAL & NEONATAL MEDICINE
2018, VOL. 31, NO. 18, 2402–2408
https://doi.org/10.1080/14767058.2017.1344631

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Check for updates

ORIGINAL ARTICLE

Neonatal complications among 596 infants delivered by vacuum extraction (in relation to characteristics of the extraction)

Cecilia Ekéus[a], Karin Wrangsell[b], Sandra Penttinen[c] and Katarina Åberg[a]

[a]Department of Women's and Children's Health, Division of Reproductive Health, Karolinska Institutet, Stockholm, Sweden; [b]Mama Mia Maternal Care, Stockholm, Sweden; [c]BB Stockholm, Danderyd Hospital, Stockholm, Sweden

Definition af complicated VE

>6 træk, 15 min og/eller > 1 pop off

Table 3. Logistic regression for neonatal complications by complicated or uncomplicated VE.

Mode of delivery	%	Crude OR	(95% CI)	Model 1[a]	(95% CI)	Model 2[b]	(95% CI)
Subgaleal or cephalohematoma							
Uncomplicated VE	5.5%	1.0		1.0		1.0	
Complicated VE	13.2%	2.60	(1.17–5.77)	2.40	(1.03–5.62)	1.91	(0.79–4.60)
Severe neonatal complication							
Uncomplicated VE	3.2%	1.0		1.0		1.0	
Complicated VE	11.8%	4.07	(1.67–9.92)	4.99	(1.82–13.63)	4.54	(1.64–12.5)
Brachial plexus injury							
Uncomplicated VE	1.0%	1.0		1.0		1.0	
Complicated VE	4.4%	4.62	(1.08–19.76)	3.04	(0.53–17.5)	3.03	(0.52–17.5)

VE: vacuum extraction.
[a]Adjusted for maternal height, parity, gestational age, birth weight and obstetric factors; fetal station, fetal presentation, indication for operative delivery and previous CS.
[b]Same as in Model 1 adding fundal pressure.

PICO 1: Antal træk

	Maximale antal træk	Maximale antal gange cup'en springer af	Varighed
Sverige	6	2	15 min
Norge	5	2	20 min
RCOG	3+3*	2	-
Australien	3**	3	20***
Tidligere DSOG guideline	3 føtal 3+3 maternel	Cuppen kan genappliceres max 2 gange	15 min føtal 20 min maternel
Forslag ny guideline	3 (max 5)	2	15

*3 træk til bækkenbund + 3 træk til fødsel
**hvis ikke sikker fremgang
*** evaluering efter 15 min

PICO 1: Antal træk

Kliniske rekommandationer	*Styrke*
Vakuumekstraktion bør sandsynligvis afbrydes, hvis der ikke er progression umiddelbart efter de første vesynkrone træk	B
Hvis barnets hoved ikke er på bækkenbunden efter maximalt 3 vesynkrone træk, bør afbrydelse af vakuumekstraktion overvejes.	C
Hvis det totale antal af vesynkrone træk overstiger 5, bør afbrydelse af vakuumekstraktion overvejes.	B

PICO 1: Når cup'en springer af

Resume af evidens	*Evidensgrad*
Hvis cup'en springer af mere end én gang øges risikoen for neonatale komplikationer muligvis.	3
Hvis cup'en springer af, øges risikoen for frustran cup muligvis	3
Det er usikkert, om antallet af gange cup'en springer af øger risikoen for maternelle komplikationer	4

PICO 1: Når cup'en springer af

Duration of Operative Vaginal Delivery and Adverse Obstetric Outcomes

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Am J Perinatol 2020;37:503–510.

Table 6 Multivariable analysis of duration of operative vaginal delivery for adverse outcomes

		Failed operative vaginal delivery	Severe perineal laceration	Composite adverse neonatal outcomes
Vacuum (n = 3,594)	Number of pop-offs			
	0	Referent	Referent	Referent
	1	**2.08 (1.31, 3.30)**	0.95 (0.72, 1.25)	1.49 (0.88, 2.52)
	2	**3.57 (2.21, 5.77)**	1.10 (0.79, 1.52)	**1.89 (1.03, 3.45)**
	3+	**11.27 (6.82, 18.63)**	**1.61 (1.06, 2.43)**	2.00 (0.90, 4.45)
	Duration (min)			
	0–2	Referent	Referent	Referent
	3–5	1.15 (0.59, 2.22)	1.21 (0.89, 1.65)	**2.36 (1.04, 5.36)**
	6–8	**2.43 (1.26, 4.68)**	1.06 (0.73, 1.54)	**2.70 (1.10, 6.64)**
	9–11	**2.83 (1.33, 6.06)**	1.08 (0.66, 1.77)	**3.17 (1.08, 9.32)**
	12+	**6.52 (3.59, 11.85)**	1.03 (0.70, 1.53)	**3.70 (1.50, 9.13)**

Note: Data are reported as aOR (95% CI) after adjusting for indication for operative vaginal delivery, fetal station, and position, maternal age and race/ethnicity, chorioamnionitis, prior vaginal deliveries, prior cesareans, and maternal BMI. Emboldened text represents statistical significance.

PICO 1: Når cup'en springer af

	Maximale antal træk	Maximale antal gange cup'en springer af	Varighed
Sverige	5	2	15 min
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Forslag ny guideline	3 (max 5)	2	15

*3 træk til bækkenbund + 3 træk til fødsel
**hvis ikke sikker fremgang
*** evaluering efter 15 min

PICO 1: Når cup'en springer af

Kliniske rekommandationer	***Styrke***
Det er god klinisk praksis at afbryde vakuumekstraktion, hvis cup'en springer af to gange. ~~Vakuumekstraktion afbrydes, hvis cup'en springer af mere end to gange, da det muligvis øger risikoen for neonatale komplikationer~~	C

PICO 1: Varighed

Received: 21 March 2019 | Accepted: 14 June 2019

DOI: 10.1111/aogs.13678

ORIGINAL RESEARCH ARTICLE

Risk factors associated with subgaleal hemorrhage in neonates exposed to vacuum extraction

Gabriel Levin[1] | Uriel Elchalal[1] | Simcha Yagel[1] | Smadar Eventov-Friedman[2] | Yossef Ezra[1] | Yishay Sompolinsky[1] | David Mankuta[1] | Amihai Rottenstreich[1]

TABLE 4 Multivariate logistic regression analysis of factors associated with subgaleal hemorrhage

Characteristic	Adjusted odds ratio	95% confidence interval	*P* value
Fetal head station			
Low position (≥+2)			Reference
Mid position (<+2)[d]	3.57	1.42-8.33	0.006
Meconium-stained amniotic fluid	2.61	1.52-4.48	0.001
Number of cap dislodgments[c]	2.38	1.66-3.44	<0.001
Duration of VAD[b]	2.04	1.72-2.38	<0.001
Caput succedaneum present	1.79	1.11-2.88	0.01
Second stage duration[a]	1.13	1.04-1.25	0.006

Note: The following variables were entered to the regression analysis as continuous variables: second stage duration, duration of VAD and the number of cap dislodgments. VAD, vacuum-assisted delivery.

[a]The odds ratio expressed as the risk for each 30-minute increase in the duration of the second stage.

[b]The odds ratio expressed as the risk for each 3-minute of VAD.

[c]The odds ratio expressed as the risk for each dislodgment.

[d]In two grand multiparous women whose infants had neonatal subgaleal hemorrhage, VAD was attempted by a senior physician above the level of the ischial spines.

Revision af guideline Instrumentel vaginal forløsning fra 2015

PICO 1: Varighed

	Maximale antal træk	Maximale antal gange cup'en springer af	Varighed
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*** evaluering efter 15 min

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists
Excellence in Women's Health

Royal College of Obstetricians & Gynaecologists

PICO 1: Varighed

Resume af evidens	***Evidensgrad***
Længere varighed af vakuum øger muligvis risikoen for neonatale komplikationer.	3
Det er usikkert, hvorvidt varigheden af cup forløsning øger risikoen for frustran cup.	4

Kliniske rekommandationer	***Styrke***
Anvend kun efter nøje overvejelse vakuumekstraktion udover 15 min, da det muligvis øger risikoen for neonatale komplikationer	D

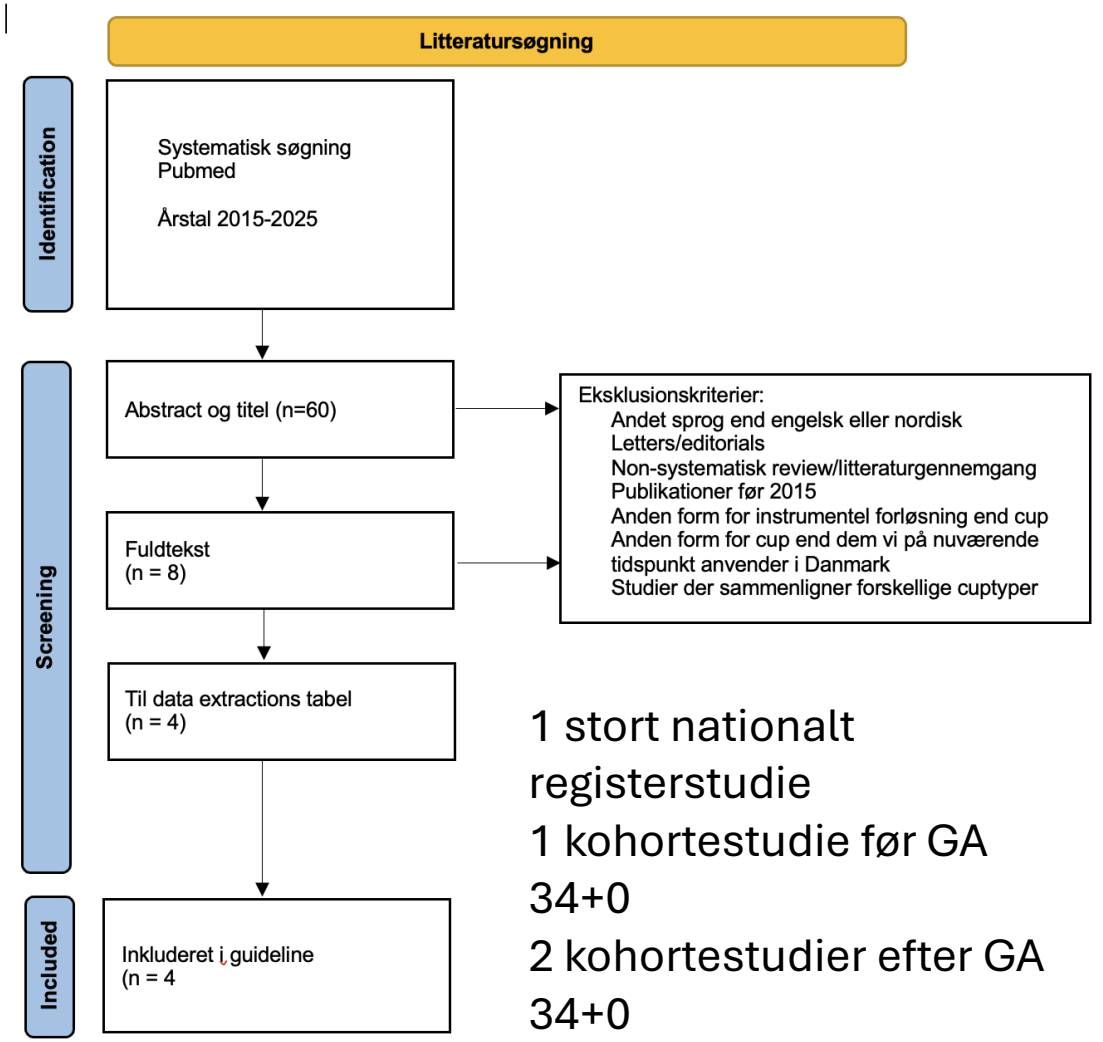
PICO 2: Præmaturitet

PICO:
P (Population): Præmature børn (<37 gestationsuger)

I (Intervention): Vaginal forløsning med cup.

C (Comparison): Mature børn eller præmature forløst uden instrument (spontan vaginal fødsel eller sectio).

O (Outcome): Neonatale hovedtraumer bl.a. intrakraniel hæmorragi (ICH), ekstrakraniel hæmorragi (ECH, inkl. kefalhæmatom/subgalealblødning), samt andre relaterede neonatale komplikationer.



1 stort nationalt registerstudie
1 kohortestudie før GA 34+0
2 kohortestudier efter GA 34+0

PICO 2: Præmaturitet

Åberg et al. BMC Pregnancy and Childbirth 2014, 14:42
http://www.biomedcentral.com/1471-2393/14/42

BMC Pregnancy & Childbirth

RESEARCH ARTICLE Open Access

Preterm birth by vacuum extraction and neonatal outcome: a population-based cohort study

Katarina Åberg[1*], Mikael Norman[2] and Cecilia Ekéus[3]

- 40.764 levendefødte singleton børn født prætermt med vakuumekstraktion (n=2.319), akut kejsersnit (n=5.505) eller spontant vaginalt (n=32.940)
- To grupper; 1: <34+0 (GA 22 til 33+6)
  2: mellem GA 34+0 og 36+6.
- Outcome: Neonatale hovedtraumer (inklusive frakturer, blødninger), neonatale kramper og plexus brachialis læsion

PICO 2: Præmaturitet

Table 4 Logistic regression (odds ratios) for intra– and extracranial hemorrhages, convulsions and other cerebral complications, and brachial plexus injury in preterm infants exposed to different modes of delivery

Mode of delivery	N	n	1/1000	Crude OR (95% CI)	AOR model 1 (95% CI)	AOR model 2 (95% CI)
				Intracranial hemorrhage		
Vaginal	32,938	486	14.8	1.0	1.0	1.0
CS during labor	5,507	105	19.1	1.30 (1.05–1.61)	0.73 (0.58–0.92)	0.76 (0.58–0.98)
VE	2,319	26	11.2	0.76 (0.51–1.13)	2.05 (1.34–3.15)	1.84 (1.09–3.12)
Total	40,764	617	15.1			
				Subgaleal– and/or cephalhematoma		
Vaginal	32,938	166	5.0	1.0	1.0	1.0
CS during labor	5,507	10	1.8	0.36 (0.19–0.68)	0.42 (0.22–0.81)	0.36 (0.18–0.70)
VE	2,319	83	35.8	7.33 (5.61–9.57)	5.89 (4.46–7.78)	4.48 (2.84–7.07)
Total	4,0764	259	6.4			
				Neonatal convulsions		
Vaginal	32,938	109	3.3	1.0	1.0	1.0
CS during labor	5,507	45	8.2	2.48 (1.75–3.52)	1.95 (1.36–2.79)	1.42 (0.92–2.17)
VE	2,319	15	6.5	1.96 (1.14–3.37)	2.51 (1.44–4.38)	1.48 (0.73–3.01)
Total	40,764	169	4.1			

CS = cesarean section, VE = vacuum extraction.
Model 1 is adjusted for year of birth, gestational age, parity, maternal age, height, BMI, and infant birthweight.
Model 2 is also adjusted for indications for operative delivery.

PICO 2: Præmaturitet

Table 3 Neonatal outcomes in preterm infants by mode of delivery and gestational age

	Total		Unassisted vaginal delivery		Cesarean section during labor		Vacuum extraction	
	N = 40,764		n = 32,940		n = 5,505		n = 2,319	
	n	1/1000	n	1/1000	n	1/1000	n	1/1000
Intracranial hemorrhages								
All	617	15.1	486	14.8	105	19.1	26	11.2
<34 weeks	564	74.6	451	79.0	95	59.4	18	71.7
34-36 weeks	53	1.6	35	1.3	10	2.6	8	3.9
Subgaleal and/or cephal hemorrhage								
All	259	6.4	166	5.0	10	1.8	83	35.8
<34 weeks	24	3.2	11	1.9	5	3.1	8	31.9
34-36 weeks	235	7.1	155	5.7	5	1.3	75	36.3

- Subgalealt hæmatom synes ikke relateret til GA, samme lave incidens som i andre studier på børn til termin (18 cases, 2/3 efter VE, sv.t. incidens på 0,5%).
- Plexus brachialis skader var 6-7 gange højere ved VE end VD til trods for små, præmature børn, understreger vigtigheden af forsigtig håndtering ved fødsel.

PICO 2: Præmaturitet

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The Journal of Maternal-Fetal & Neonatal Medicine

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Neonatal outcome of second-stage cesarean delivery versus vacuum extraction among neonates <34 weeks

Gabriel Levin, Amihai Rottenstreich, Abraham Tsur, Tal Cahan, Joshua I. Rosenbloom, Simcha Yagel & Raanan Meyer

- Israelsk retrospektivt kohortestudie
- 60 singletongravide fra 30+0 til 33+6
- 25 forløst med hård cup
- 35 forløst ved sectio under aktiv fødsel
- IVH: 1 i VE gruppen, 3 I sectio gruppen
- Subgalealt hæmatom: 1 i VE gruppen

PICO 2: Præmaturitet

	Kan anvendes GA 34-36+0	Kan anvendes med forsigtighed 32+0-36+0
Sverige	x	(x)
Norge	x	
RCOG		x
Australien	x	
Tidl DSOG	X (medmindre særlige forhold gør sig gældende)	
Ny DSOG		X (under særlige forhold)

PICO 2: Præmaturitet

Resume af evidens	***Evidensgrad***
Risikoen for intrakraniel blødning og kraniefraktur er sandsynligvis højere ved cupanlæggelse blandt præterme før GA 34+0.	2
Risikoen for ekstrakranielle blødninger er sandsynligvis størst blandt præterme i GA 34-36+6	2

Kliniske rekommandationer	***Styrke***
Vakuumekstraktion kan anvendes fra GA 34+0, da risikoen for neonatale komplikationer sandsynligvis er lav.	B
Vakuumekstraktion før GA 34 bør kun anvendes under helt særlige omstændigheder	D
Ved behov for instrumentel forløsning før GA 34 kan man overveje at anlægge en præterm silikone cup (efter GA 32) eller en præterm tang.	D

PICO 3: Profylaktisk antibiotika

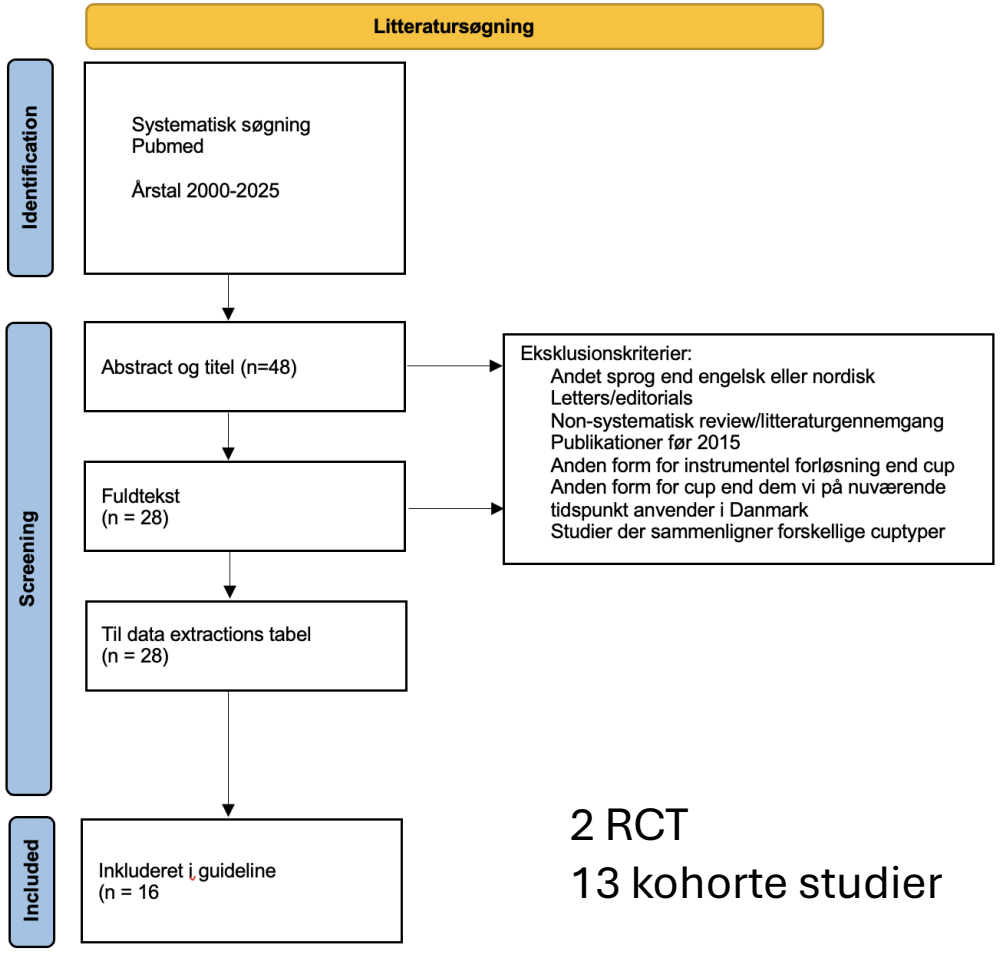
PICO:

P (Population): Kvinder, der føder vaginalt ved vakuumekstraktion.

I (Intervention): Profylaktisk antibiotika givet intravenøst umiddelbart efter fødslen

C (Comparison): Ingen profylaktisk antibiotika

O (Outcome): Forekomst af postpartum perineal sårinfektion.



2 RCT

13 kohorte studier

PICO 3: Profylaktisk antibiotika

Prophylactic antibiotics in the prevention of infection after operative vaginal delivery (ANODE): a multicentre randomised controlled trial

*Marian Knight, Virginia Chiocchia, Christopher Partlett, Oliver Rivero-Arias, Xinyang Hua, Kim Hinshaw, Derek Tuffnell, Louise Linsell, Edmund Juszczak, on behalf of the ANODE collaborative group**

- ANODE, UK RCT, 2019,
- 27 afdelinger, 3400 kvinder med instrumentel forløsning >36+0
- Bristninger grad 3+4 ekskluderet.
- Enkelt dosis intravenøs Amoxicillin 1 g + clavulansyre 200 mg umiddelbart efter fødslen eller ingen
- Outcome var bekræftet eller mistænkt perineal sårinfektion.

PICO 3: Profylaktisk antibiotika

Outcomes

The primary outcome was confirmed or suspected maternal infection within 6 weeks of delivery, Defined by a new prescription of antibiotics for presumed perineal wound-related infection, endometritis or uterine infection, urinary tract infection with systemic features (pyelonephritis or sepsis) or other systemic infection (clinical sepsis); confirmed systemic infection on culture; or endometritis, as defined by the US Centers for Disease Control and Prevention. An episode of endometritis required at least one of the following criteria to be met: organisms were cultured from fluid (including amniotic fluid) or tissue from endometrium obtained during an invasive procedure or biopsy, or the woman exhibited at least two of fever (>38°C), abdominal pain, uterine tenderness, or purulent drainage from uterus (with no other recognised cause for the latter three symptoms).

Outcome indhentes....
Hospital journal og telefon opkald 6 uger postpartum

	Amoxicillin and clavulanic acid (n=1715)	Placebo (n=1705)
Maternal age, years	30·3 (5·37)	30·2 (5·49)
Missing	0	0
Gestational age at randomisation, weeks	40 (39–41)	40 (39–41)
36 to <38	136 (8%)	123 (7%)
38 to <40	568 (33%)	555 (33%)
40 to <42	964 (56%)	968 (57%)
≥42	46 (3%)	59 (3%)
Missing	1	0
Ethnicity		
White	1436 (84%)	1474 (87%)
Indian	36 (2%)	34 (2%)
Pakistani	73 (4%)	54 (3%)
Bangladeshi	8 (<1%)	14 (1%)
Black Caribbean	6 (<1%)	8 (<1%)
Black African	32 (2%)	29 (2%)
Other	116 (7%)	85 (5%)
Missing	8	7
Body-mass index at booking, kg/m²	25 (22–28)	25 (22–29)
<18·5	46 (3%)	48 (3%)
18·5–24·9	851 (51%)	842 (51%)
25–29·9	460 (28%)	446 (27%)
30–34·9	207 (12%)	216 (13%)
35–39·9	74 (4%)	77 (5%)
≥40	32 (2%)	34 (2%)
Missing	45	42
Twin pregnancy	11 (1%)	9 (1%)
Missing	0	0
Any previous pregnancies ≥22 weeks gestation	402 (23%)	373 (22%)
Missing	1	3

	Amoxicillin and clavulanic acid (n=1715)	Placebo (n=1705)
(Continued from previous column)		
Labour induction	819 (48%)	852 (50%)
Missing	0	0
Actual mode of birth*		
Spontaneous vaginal	7 (<1%)	3 (<1%)
Forceps	1086 (63%)	1148 (67%)
Vacuum extraction	633 (37%)	563 (33%)
Caesarean section	0	0
Missing	0	0
Sequential instruments used	77 (4%)	78 (5%)
Missing	0	0
Reason for instrumental delivery (non-exclusive)		
Failure to progress	855 (50%)	870 (51%)
Fetal compromise	861 (50%)	817 (48%)
Other	134 (8%)	131 (8%)
Missing	2	0
Episiotomy in current delivery	1519 (89%)	1525 (89%)
Missing	0	0
Perineal tear in current delivery	493 (29%)	560 (33%)
Missing	0	0
Perineal wound sutured	1645 (99%)	1665 (100%)
Missing	54	33
Location of suturing		
Operating theatre	571 (35%)	588 (35%)
Delivery ward or room	1074 (65%)	1076 (65%)
Missing	70	41

Data are mean (SD), n, median (IQR), or n (%). *Includes 20 sets of twins; 3440 births in total.

Table 1: **Baseline characteristics (intention-to-treat population)**

	Amoxicillin and clavulanic acid (n=1715)	Placebo (n=1705)	RR*	p value
Confirmed or suspected maternal infection	180 (11%)	306 (19%)	0·58 (0·49–0·69)†	<0·0001
Missing	96	99	NA	NA
Confirmed systemic infection on culture	11 (1%)	25 (1%)	0·44 (0·22–0·89)†	0·018
Missing	1	1	NA	NA
Endometritis	15 (1%)	23 (1%)	0·65 (0·34–1·24)†	0·186
Missing	1	1	NA	NA
New prescription of antibiotics with relevant indication	180 (11%)	306 (19%)	0·58 (0·49–0·69)†	<0·0001
Missing	96	99	NA	NA
Systemic sepsis according to modified SIRS criteria for pregnancy	6 (<1%)	10 (1%)	0·59 (0·16–2·24)‡	0·307
Missing	9	16	NA	NA
Perineal wound infection				
Superficial incisional infection	75 (4%)	141 (8%)	0·53 (0·37–0·75)‡	<0·0001
Missing	3	9	NA	NA
Deep incisional infection	36 (2%)	77 (5%)	0·46 (0·28–0·77)‡	<0·0001
Missing	5	11	NA	NA
Organ or space infection	0	4 (<1%)	0	0·044
Missing	7	11	NA	NA

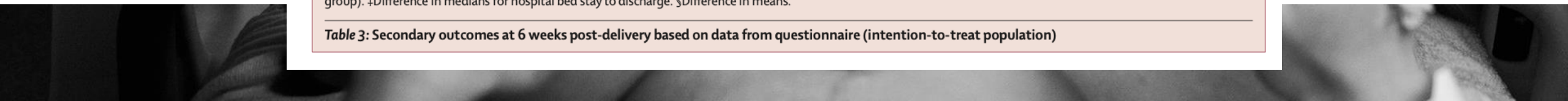
Data are n (%), risk ratio (RR; 95% CI), or RR (99% CI). NA=not applicable. SIRS=systemic inflammatory response syndrome. *Risk in amoxicillin and clavulanic acid group/risk in placebo group. †95% CI. ‡99% CI.

Table 2: **Outcomes at 6 weeks post-delivery based on data from telephone follow-up and hospital records (intention-to-treat population)**

	Amoxicillin and clavulanic acid (n=1296)	Placebo (n=1297)	Effect measure (99% CI)	p value
Perineal pain	592 (46%)	707 (55%)	0·84 (0·76 to 0·93)*	<0·0001
Missing	0	0	NA	NA
Use of pain relief for perineal pain	99 (8%)	138 (11%)	0·72 (0·52 to 0·99)*	0·0073
Missing	13	18	NA	NA
Need for additional perineal care	390 (31%)	543 (43%)	0·72 (0·63 to 0·83)*	<0·0001
Missing	42	38	NA	NA
Wound breakdown	142 (11%)	272 (21%)	0·52 (0·41 to 0·67)*	<0·0001
Missing	4	7	NA	NA
Dyspareunia†	299 (55%)	280 (54%)	1·01 (0·87 to 1·17)*	0·873
Missing	5	8	NA	NA
Breastfeeding at 6 weeks	662 (51%)	657 (51%)	1·01 (0·91 to 1·11)*	0·828
Missing	4	4	NA	NA
Perineum ever too painful or uncomfortable to feed baby	136 (11%)	198 (17%)	0·69 (0·53 to 0·90)*	<0·00025
Missing	96	98	NA	NA
Hospital bed stay to discharge	1 (1–2)	1 (1–2)	0 (0 to 0)‡	0·318
Missing	0	0	NA	NA
Any primary care or home visits in relation to perineum	361 (28%)	496 (38%)	0·73 (0·63 to 0·84)*	<0·0001
Missing	3	5	NA	NA
Any outpatient visits in relation to perineum	95 (7%)	173 (13%)	0·55 (0·40 to 0·75)*	<0·0001
Missing	5	6	NA	NA
Maternal hospital re-admission	63 (5%)	84 (7%)	0·75 (0·49 to 1·14)*	0·072
Missing	47	51	NA	NA
Maternal health-related quality of life				
EQ-5D-5L score	0·935 (0·098)	0·927 (0·111)	0·008 (–0·003 to 0·019)§	0·048
Missing	16	18	NA	NA

Data are n (%), n, median (IQR), or mean (SD). NA=not applicable. EQ-5D-5L=five-level EuroQol-5D questionnaire. *Risk ratio (risk in amoxicillin and clavulanic acid group/risk in placebo group). †Denominator is all women who have attempted intercourse since giving birth (n=544 amoxicillin and clavulanic acid group, n=514 control group). ‡Difference in medians for hospital bed stay to discharge. §Difference in means.

Table 3: **Secondary outcomes at 6 weeks post-delivery based on data from questionnaire (intention-to-treat population)**



PICO 3: Profylaktisk antibiotika

Sekundær analyse ANODE trial

Number Needed to Treat (NNT)
26 for at undgå én overfladisk perineal sårinfektion,
41 for at undgå én dyb perineal sårinfektion
121 for at undgå én alvorlig infektionskomplikation

Risikoen for infektion stiger med graden af bristning:
Grad 1/2 bristning havde risiko på 7,6% (11/141) for infektion,
Isoleret episiotomi 18% (187/1041)
Både grad 1/2 bristning og episiotomi 27% (107/392)

Kohorte studier med cupforløsning finder ikke at cupforløsning i selv sig øger risikoen for infektion

PICO 3: Profylaktisk antibiotika

Review Article

Still No Substantial Evidence to Use Prophylactic Antibiotic at Operative Vaginal Delivery: Systematic Review and Meta-Analysis

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PICO 3: Profylaktisk antibiotika

	Anbefaler ikke	Anbefaler
Sverige	x	
Norge	x	
RCOG		x
Australien		x
USA	x	
Tidl DSOG	?	
Ny DSOG	x	

PICO 3: Profylaktisk antibiotika

Resume af evidens	***Evidensgrad***
Det er usikkert, om fordelene ved rutinemæssig antibiotikaprofylakse ved vakuumekstraktion opvejer ulemperne, herunder risikoen for antibiotikaresistens samt påvirkningen af det maternelle og neonatale mikrobiom.	4
Profylaktisk antibiotika ved vakuumekstraktion nedsætter sandsynligvis risikoen for infektion, men det er usikkert hvor stor effekten vil være i en dansk population (Number Needed to Treat).	2

Kliniske rekommandationer	***Styrke***
Det er usikkert om profylaktisk antibiotika ved vakuumekstraktion er rutinemæssigt indiceret.	D

Diskussion

Kliniske rekommandationer	*Styrke*
Det er god klinisk praksis at afbryde vakuumekstraktion, hvis cup'en springer af to gange. ~~Vakuumekstraktion afbrydes, hvis cup'en springer af mere end to gange, da det muligvis øger risikoen for neonatale komplikationer~~	C

Kliniske rekommandationer	*Styrke*
Det er usikkert om profylaktisk antibiotika ved vakuumekstraktion er rutinemæssigt indiceret.	D