

# Anesteziolog a nesledovaná gravidita

Pavλίna Nosková

XI. Konference Akutně.cz Brno 2019



**NEZLETILÉ MATKY**

**NECHTĚNÁ GRAVIDITA**



# Alkohol a žena

kniha od: **Pavla Moudrá**

neh

současnost:

75% žen pije alkohol před graviditou

z toho 16% žen pokračuje v graviditě

Popis knihy zde zatím bohužel není.

Žánr

Literatura česká, Zdraví

Vydáno

1910, Československý abstinenci  
svaz

1. vydání originálu: 1910

Jazyk vydání

český

# SLIVOVICA



HOMEOPATIKUM



ANTIBIOTIKUM



ANALGETIKUM



ANESTETIKUM

J Matern Fetal Neonatal Med. 2007 May;20(5):361-75.

## **Ethanol and the placenta: A review.**

Burd L<sup>1</sup>, Roberts D, Olson M, Odendaal H.

### **Author information**

- 1 Department of Pediatrics, University of North Dakota School of Medicine and Health Sciences, Grand Forks, North Dakota, USA.  
laburd@medicine.nodak.edu

### **Abstract**

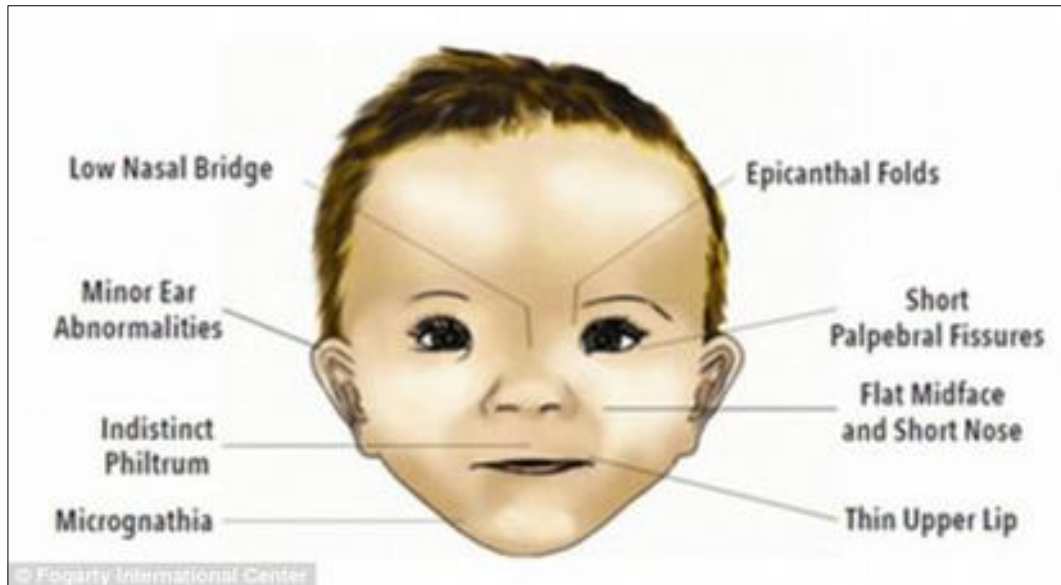
**OBJECTIVE:** In this paper we review published studies of alcohol exposure on placentation, placenta growth and function.

**METHODS:** We searched PubMed using the MeSH terms: placenta, ethanol, fetal alcohol syndrome and prenatal exposure with delayed effects. We searched the years 1996-2006 and used the references from other articles to expand our search. We limited the search to English only and human only. We excluded studies using choriocarcinoma and animal studies. We grouped the 66 papers into seven topic areas for ease of review.

**RESULTS:** Alcohol exposure is associated with placental dysfunction, decreased placental size, impaired blood flow and nutrient transport, endocrine changes, increased rates of stillbirth and abruption, umbilical cord vasoconstriction, and low birth weight.

# FAS - Fetální alkoholový syndrom

prevalence 0,5-3/1000 živě narozených dětí



Dříve kofein + glukóza + vitamin C i.v.

Naloxon

Zahraničí: fruktóza, metadoxin



prim. P. Popov, Klinika adiktologie VFN a 1. LF UK

Přivezli nám rodičí  
opilou ženu


**ASPIRACE**





Best Practice & Research Clinical Obstetrics and Gynaecology

Vol. 15, No. 6, pp. 987–998, 2001

doi:10.1053/beog.2001.0242, available online at <http://www.idealibrary.com> on 



**12**

---

## **Drugs of abuse in pregnancy**

**Alison Wright MBChB, MRCOG**

Lecturer

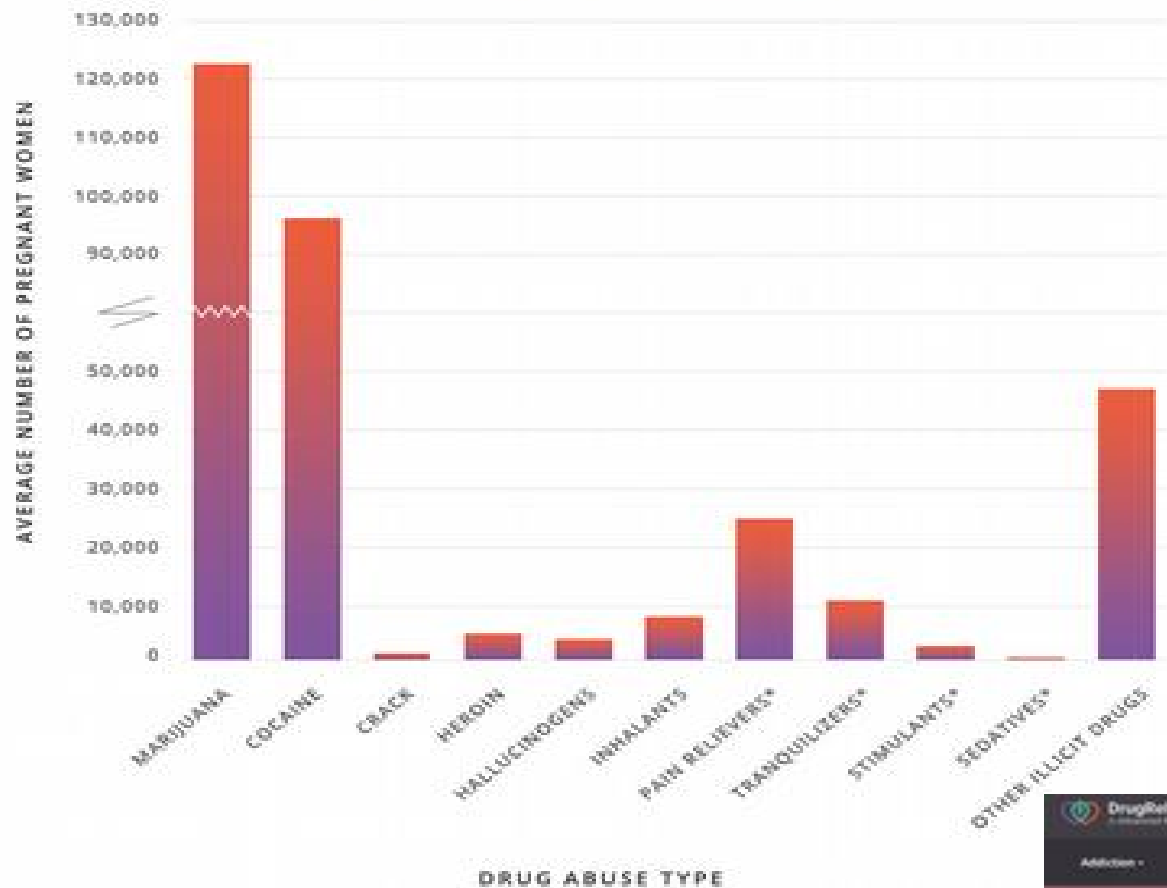
*University Department of Obstetrics and Gynaecology, Leeds General Infirmary, Leeds, UK*

**James Walker MD, FRCP(Glas & Edin), FRCOG**

Professor

*University Department of Obstetrics and Gynaecology, St James University Hospital, Leeds, UK*

Estimated Annual Average Number of Pregnant Women Who Used Illicit Drugs in the U.S., 2013 and 2014:



\*Prescription



DrugRehab.com  
 A National Recovery System

[Addiction](#) • [Treatment](#) • [Active Recovery](#) • [Advocacy and Support](#)

**Addiction and Pregnancy:  
 A Guide for Mothers**

**Table I.** The effects of drugs on mother and baby.

Drug	Antepartum	Intrapartum	Post-partum	Long term
Smoking	Growth restriction	Fetal distress	Increase in infant deaths	
Alcohol	Fetal alcohol syndrome		Maternal withdrawal symptoms	Fetal alcohol syndrome ?Mental impairment
Heroin/opiates	Preterm labour Growth restriction	Problems with analgesia	Neonatal abstinence syndrome	Probably not
Cocaine	Placental pathology Growth restriction Impaired brain development Abruption	Placental pathology Low birth weight Fetal distress	Prolonged fetal withdrawal (3 days–3 weeks) Chaotic lifestyle	Aggressive children Neurodevelopmental delay
Amphetamines	?Growth restriction Maternal hypertension Antisocial behaviour	Maternal cardiovascular disturbances	Chaotic lifestyle	
Ecstasy	Congenital defects			
Benzodiazepines	?Cleft lip and palate			?Neurodevelopmental delay

# Rizika pro anesteziologa

Hepatitis B, C, TBC

HEPATOPATIE, KOAGULOPATIE

SEPTICKÉ STAVY

INSUFICIENTNÍ ŽILNÍ ŘEČIŠTĚ

DREDY

Substituční léčba ?

Kontakt na adiktologické pracoviště



# Benzodiazepiny

- **Matka**

Somnolence, koma

Útlum dechového centra

Ataxie

Svalová slabost

- **Dítě**

↑ riziko rozštěpových vad

Floppy infant syndrom

Neonatální abstinenční sy

**ANTIDOTUM FLUMAZENIL**

# Opioidy

- **Matka**

Útlum dechového centra

Útlum kašlacího reflexu

↓ HR, TK, hyperalgezie

Útlum motility GIT

**CAVE** pneumonie

endokarditida

- **Dítě**

↑ abrupce placenty

**IUGR**

↑ perinatální úmrtí

**Neonatální abstinenční sy**

(opiová tinktura, methadon)

**ANTIDOTUM NALOXON**

# Opioidy

- Rozdělení dle působení na receptorech

Receptory		$\mu$	$\delta$	$\kappa$
Účinky		Analgezie Útlum dechu, GIT Sedace, euforie	Analgezie Útlum dechu Zácpa	Analgezie Sedace Dysforie
Agonisté	Slabé + silné opioidy	+++		
Antagonisté	Naloxon	—		
Smíšené ago-antago	Pentazocin Butorfanol Nalbuphin	—	+	++
Parciální agonisté	Buprenorfin	+++	+	—

# Stimulancia: amfetaminy, kokain

- **Matka**

↑ SF, ↑TK, arytmie

SAK, AIM, disekce aorty

Euforie, agitovanost

Plicní edém a hypertenze

Epistaxe a defekt nos. septa

Křeče, proteinurie

- **Dítě**

Vazokonstrikce cév placenty

↑ abrupce placenty

IUGR

↑ arytmie a srdeční selhání

Dif. dg preeklampsie/eklampsie

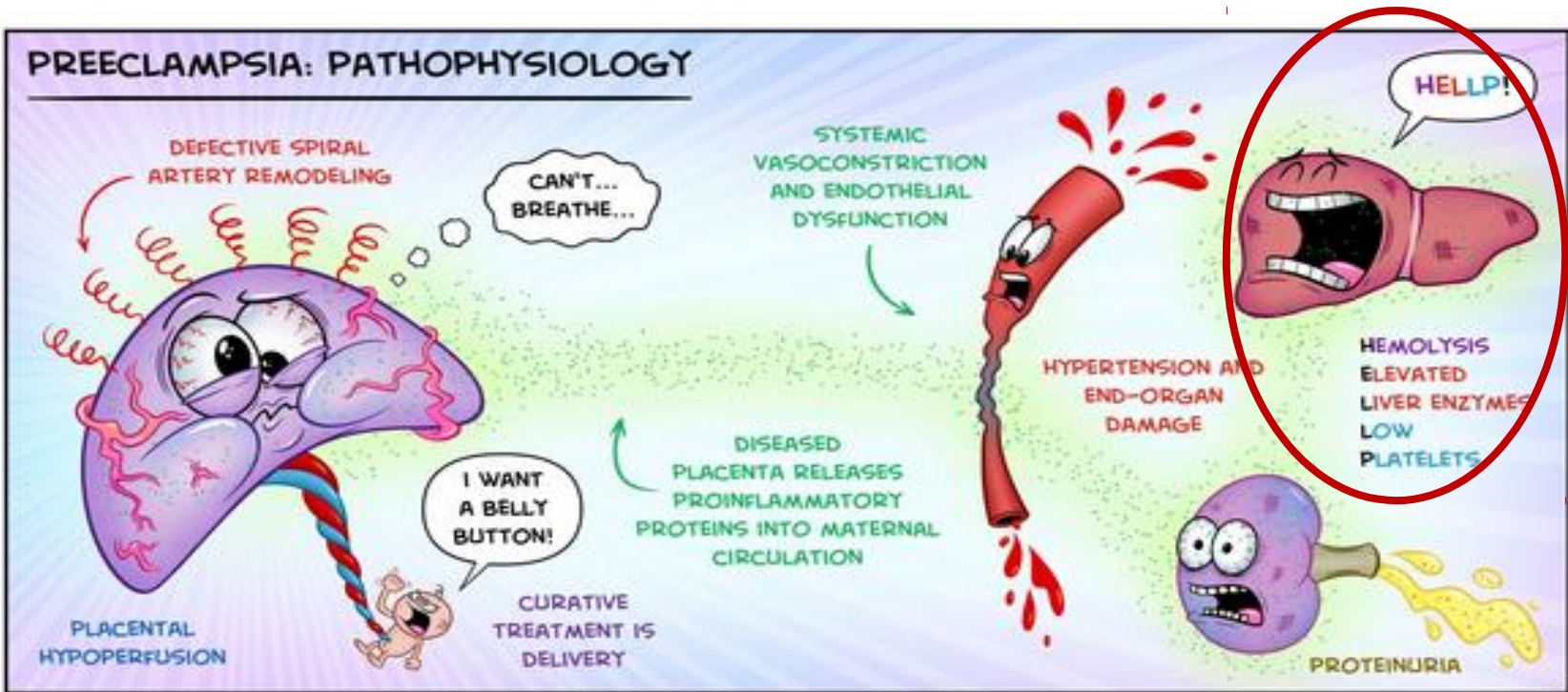


# Kanabinoidy

- **Euforie**
  - **Tachykardie/bradykardie**
  - **Zvýšená minutová ventilace**
  - **Reverzibilní změny ST segmentu**
- 
- **Symptomatická terapie (esmolol, labetalol)**



## PREECLAMPSIA: PATHOPHYSIOLOGY



**EKLAMPSIE**

## Magnezium, restrikce tekutin

- Nezbytnou a zásadní součástí léčby těžké preeklampsie je podání antikonvulziva. Jako nejvýhodnější se jeví intravenózní podání  $\text{MgSO}_4$ . Doporučená iniciální dávka představuje podání 4g  $\text{MgSO}_4$  i.v. (po dobu 5–10 minut). Následnou kontinuální infuzí 1g  $\text{MgSO}_4$ /hod je vhodné podávat po dobu minimálně 24 hodin.
- Při neúspěchu  $\text{MgSO}_4$  léčby a rozvoji eklampsie je vhodné podat benzodiazepiny.
- Celková dávka aplikovaných intravenózních roztoků by neměla přesahovat 80 ml/hod, pokud nedošlo v předchozím období k vyšší krevní ztrátě.

# Příjem

Odeberte:

KO, KS, Rh, biochemii

HIV, BWR, hepatitidy B (C)

GBS

Moč na toxikologii

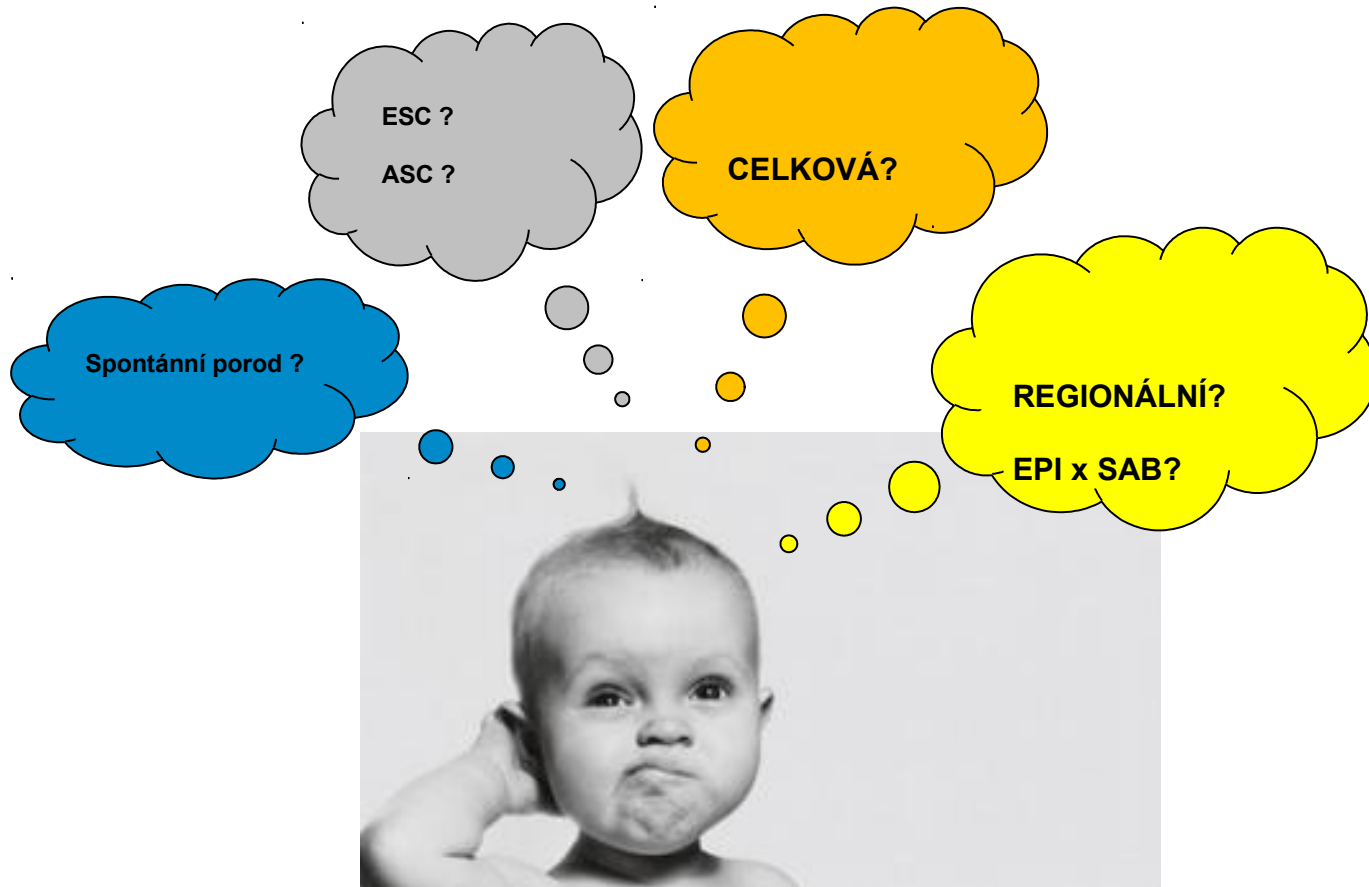
Spazmolytika dám

až po odběru

Moč až začevkuji



# Volba anestezie a analgezie



**Individuální přístup !**

# Risk vs Benefit



# Tipy UpToDate® RA

- EDA, EPI nad trombo  $75 \times 10^9/l$
- Individuální přístup trombo 50 -  $75 \times 10^9/l$
- NAB dolní hranice trombo  $50 \times 10^9/l$

## **Anesthesia for the patient with preeclampsia**

Authors: Joy Hawkins, MD ; Emily McQuaid-Hanson, MD

Section Editor: David L Hepner, MD

Deputy Editor: Marianna Crowley, MD

Literature review current through: Aug 2018. | This topic last updated: Jun 15, 2018.





Contents lists available at [ScienceDirect](#)

## Best Practice & Research Clinical Anaesthesiology

journal homepage: [www.elsevier.com/locate/bean](http://www.elsevier.com/locate/bean)



11

## Preeclampsia in 2017: Obstetric and Anaesthesia Management

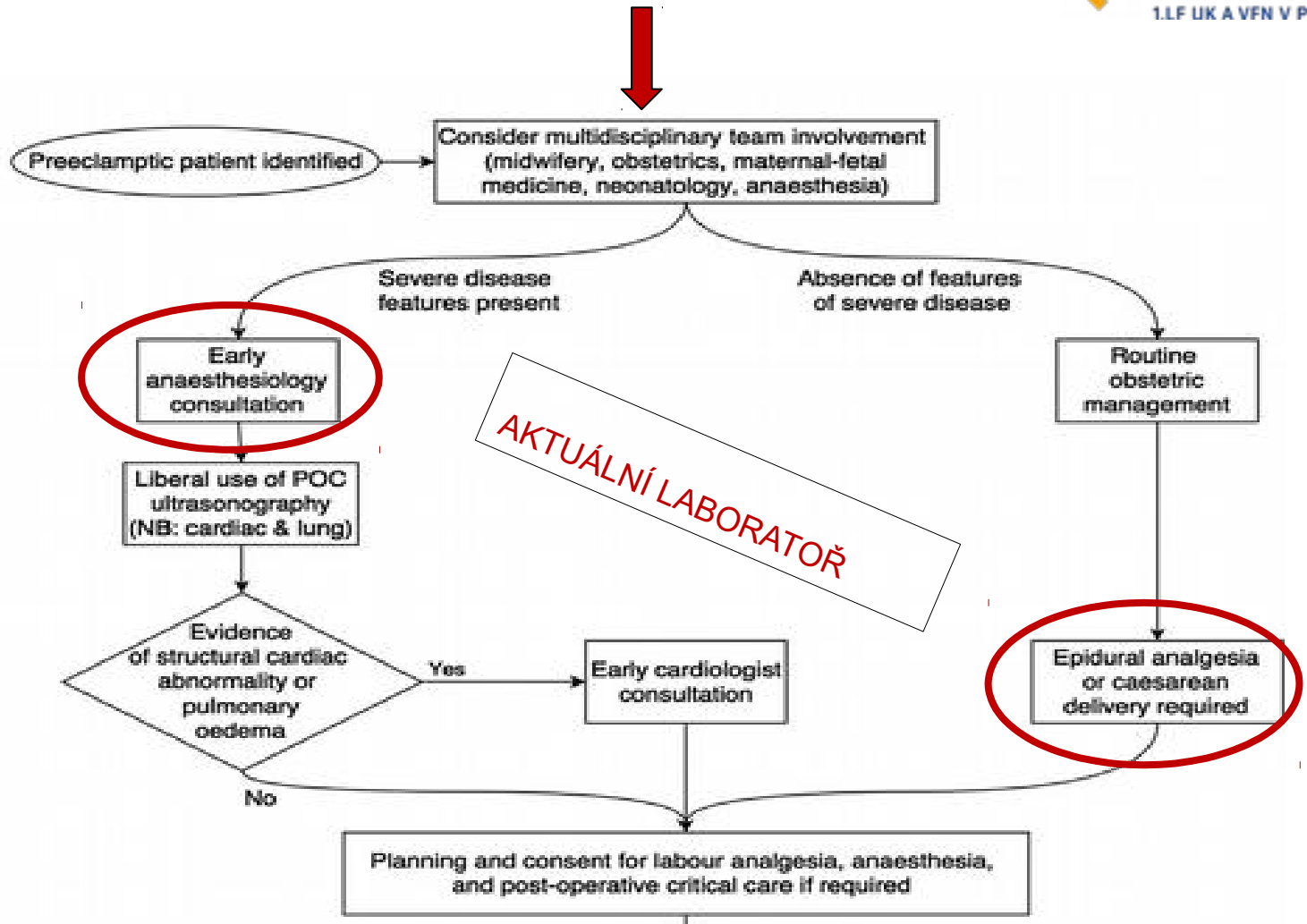


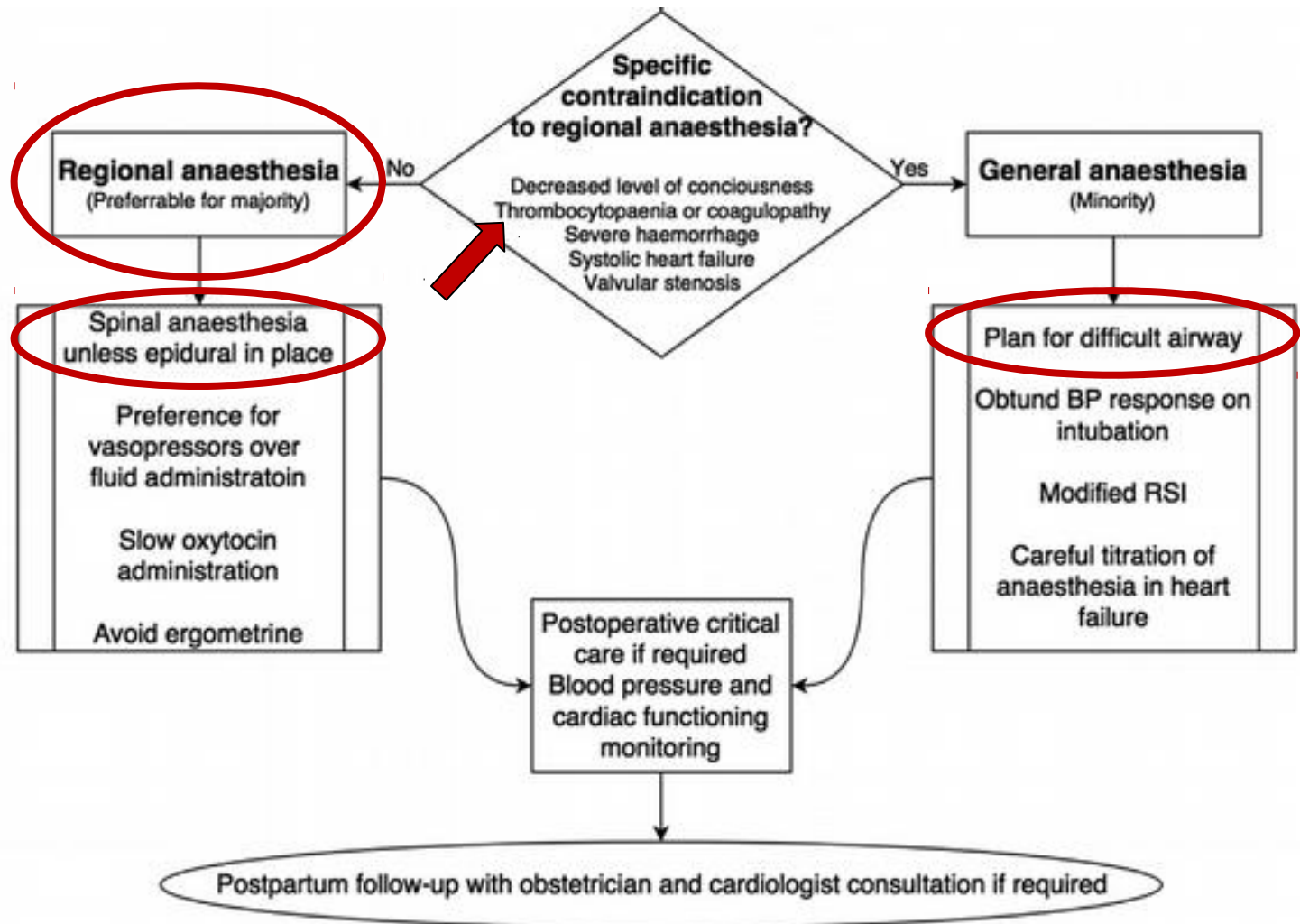
Ross Hofmeyr, MMed(Anaes), FCA(SA),  
Consultant Anaesthesiologist <sup>a, \*</sup>,

Mushi Matjila, PhD, FCOG(SA), Consultant Obstetrician <sup>b</sup>,  
Robert Dyer, PhD, FCA(SA), Professor & Second Chair <sup>a</sup>

<sup>a</sup> Department of Anaesthesia & Perioperative Medicine, University of Cape Town, South Africa

<sup>b</sup> Department of Obstetrics & Gynaecology, University of Cape Town, South Africa





# Tipy UpToDate® CA

- **Mg a nedepolarizující myorelaxancia: TOF (ne u ESC)**
- **Úvod do CA ↓ TK: Labetalol k dosažení TK 160/110**
  - Lidokain 1 - 1,5 mg/kg**
  - Remifentanil 1 µg/kg**

## **Anesthesia for the patient with preeclampsia**

Authors: Joy Hawkins, MD ; Emily McQuaid-Hanson, MD

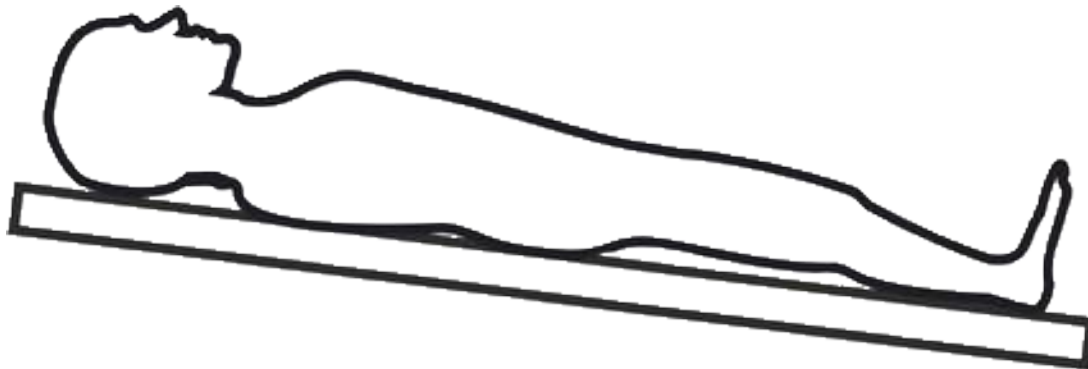
Section Editor: David L Hepner, MD

Deputy Editor: Marianna Crowley, MD

Literature review current through: Aug 2018. | This topic last updated: Jun 15, 2018.

# Poloha při úvodu do CA

- Zvýšení polohy trupu o 5-15 st.
- Prevence aspirace
- Zvýšení FRC plic



# Nová mezinárodní doporučení 2015

Promoting the highest standards of anaesthetic practice in the care of mother and baby

**Obstetric Anaesthetists' Association**

**New OAA/DAS guideline**



**Obstetric general anaesthesia  
and failed tracheal intubation**



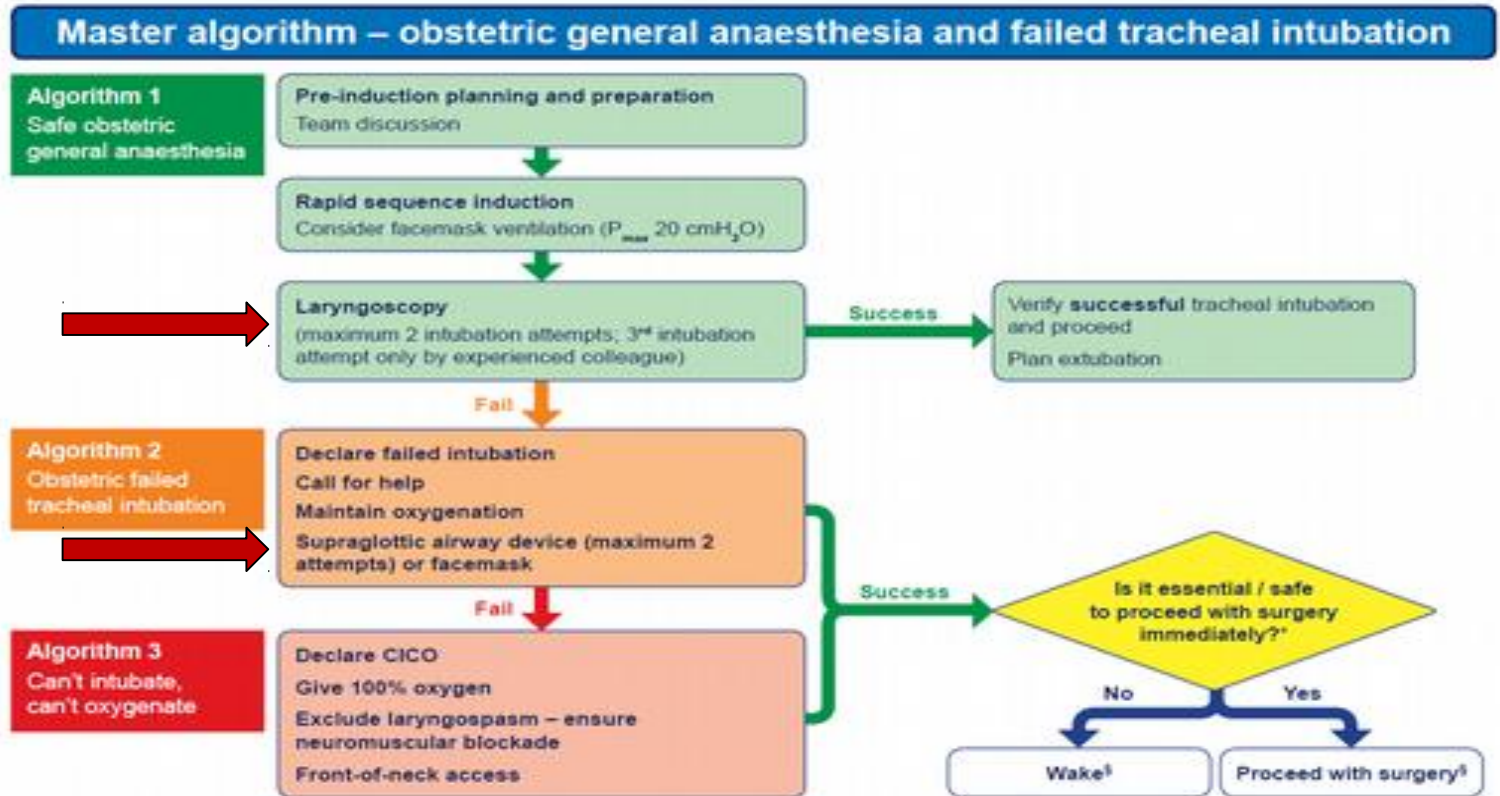
[Click here for details »](#)

## Guidelines

Obstetric Anaesthetists' Association and Difficult Airway Society  
guidelines for the management of difficult and failed tracheal  
intubation in obstetrics

Dr C. Woodgate<sup>1</sup>, Dr M. Stovits<sup>2</sup>, Dr. Agostini<sup>3</sup>, Dr. Gupta<sup>4</sup>, Dr. K. S. Bhatnagar<sup>5</sup>, Dr. S. Williams<sup>6</sup>  
& Dr. O'Connell<sup>7</sup>

# CA u SC a neúspěšná intubace



# Supraglottické pomůcky 2. generace

Kontrola případné regurgitace žaludečního obsahu

- LM Supreme, ProSeal, I-gel, Auragain







ELSEVIER

[www.obstetanesesthesia.com](http://www.obstetanesesthesia.com)

ORIGINAL ARTICLE

# Ultrasound to identify the lumbar space in women with impalpable bony landmarks presenting for elective caesarean delivery under spinal anaesthesia: a randomised trial

M. Creaney, D. Mullane, C. Casby, T. Tan

*Department of Perioperative Medicine, The Coombe Women and Infants University Hospital, Dublin, Ireland*

## ABSTRACT

**Background:** Ultrasound can facilitate neuraxial blockade in patients with poorly defined anatomical surface landmarks, but there are no studies comparing an ultrasound-guided technique with landmark palpation for spinal anaesthesia. The objective of this study was to compare pre-procedural lumbar ultrasonography with landmark palpation to locate the needle insertion point in women with impalpable lumbar spinous processes presenting for caesarean delivery.

**Methods:** After institutional ethics committee approval, 20 women with impalpable lumbar spinous processes presenting for elective caesarean delivery were recruited. Patients were randomised to palpation or ultrasound. The primary outcome of the study was the number of needle passes to achieve lumbar puncture. Secondary outcomes were the overall procedural time and patient satisfaction score.

**Results:** There was no difference in body mass index (BMI) between groups (ultrasound  $38.3 \pm 3.77 \text{ kg/m}^2$  vs. palpation  $38.3 \pm 3.77 \text{ kg/m}^2$ ,  $P=0.99$ ). The number of needle passes to achieve lumbar puncture was significantly lower in the ultrasound group (ultrasound  $21.0 \pm 50.3$  vs. palpation  $32.0 \pm 11.5$ ,  $P=0.001$ ). There was no difference in the total procedural time between groups (ultrasound  $191.8 \pm 49.4$  s vs. palpation  $192 \pm 110.9$  s,  $P=0.99$ ).

**Conclusion:** The use of ultrasonography to locate the needle insertion point reduced the number of needle passes in women with impalpable lumbar spinous processes undergoing elective caesarean delivery under spinal anaesthesia. Its use did not prolong overall procedural time.

OBEZITA

vs. palpation compared to point in the

point in the

total procedural

ULTRAZVUK 4 x

GBS

KARDIOTOKOGRAFIE

ODBĚR KRVE

TRIPPLE TEST

STOMATOLOG

Rh faktor

PRAKTICKÝ LÉKAŘ



**DĚKUJI ZA POZORNOST**