The European Society of Regional Anaesthesia & Pain Therapy
ESRA ITALIA

ESRA ITALIAN CHAPTER

30° NATIONAL MEETING

Presidents:
Giuseppe Servillo, Fabrizio Fattorini

13-15 NOV 2025

NAPOLI
HOTEL RAMADA

DECISION TO DELIVERY TIME: WHICH ANESTHESIA

DR. SSA ORNELLA MERLO

Ospedale Buccheri La Ferla F.B.F. Palermo
UOC di Anestesia e Rianimazione- Direttore L.Calderone

MZ EVENTS

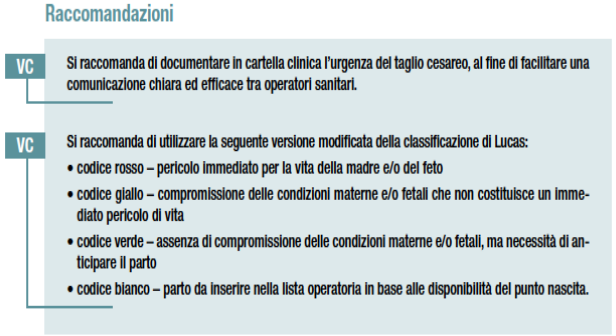
DECISION TO DELIVERY TIME

The interval between the time at which the senior obstetrician makes the decision that a caesarean section is required and the time at which the fetus (or first fetus in the case of multiples) is delivered. The decision time should ideally be recorded contemporaneously in the medical notes or partogram.

It is recommended:

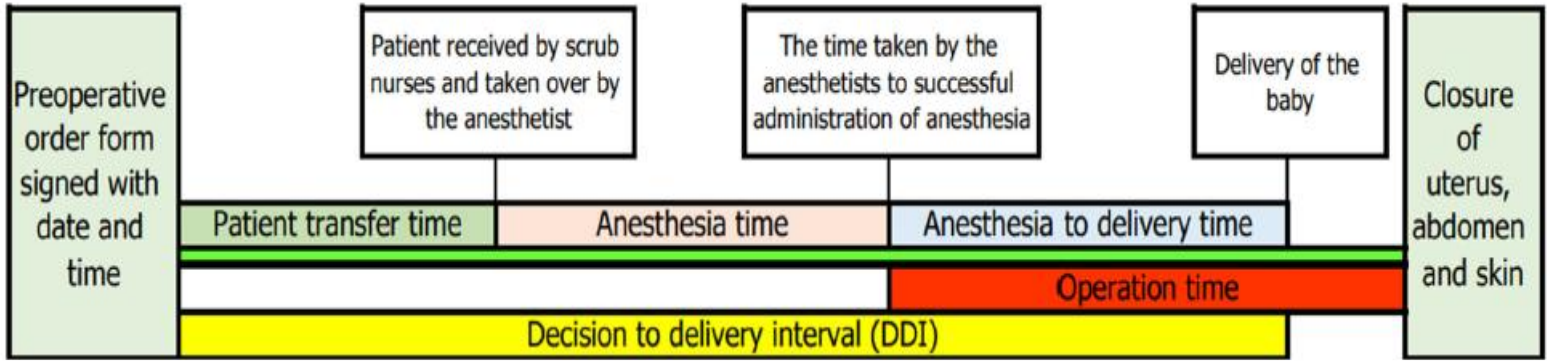
- **CT Grade 1 or Emergency: 30 minutes or as soon as possible (Massive placental abruption, umbilical cord prolapse, uterine rupture)**
- **CT Grade 2: 30-75 minutes**

The NICE (National Institute For Health And Clinical Excellence, UK) recommends performing grade 1 and 2 CT as soon as possible after making the decision, especially grade 1.


Raccomandazioni

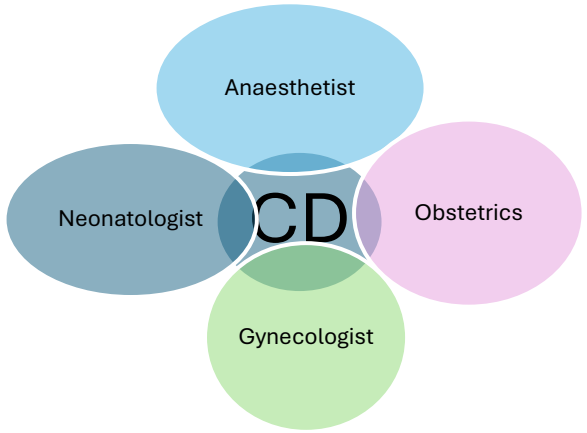
VC Si raccomanda di documentare in cartella clinica l'urgenza del taglio cesareo, al fine di facilitare una comunicazione chiara ed efficace tra operatori sanitari.

VC Si raccomanda di utilizzare la seguente versione modificata della classificazione di Lucas:
- codice rosso – pericolo immediato per la vita della madre e/o del feto
- codice giallo – compromissione delle condizioni materne e/o fetali che non costituisce un immediato pericolo di vita
- codice verde – assenza di compromissione delle condizioni materne e/o fetali, ma necessità di anticipare il parto
- codice bianco – parto da inserire nella lista operatoria in base alle disponibilità del punto nascita.



Evaluation of decision to delivery interval and its effect on feto-maternal outcomes in Category-I emergency cesarean section deliveries in Phuentsholing General Hospital, 2020: A retrospective cross-sectional study. Y.Dorjei et al. Health Sci. Rep.2023;6:e1050.

CD is a multidisciplinary procedure…



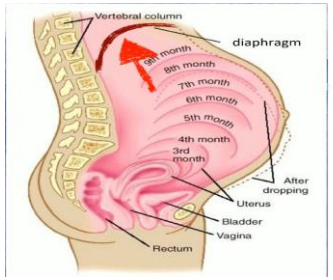
- The figures involved must have clear tasks and responsabilities;
- Rapid maternal/fetal assessment
- Clear and effective communication (with mother and in the team);
- DDI

Pay attention to:

- Venous accesses (1/2 18G-16G);
- Antibiotic prophylaxis;
- Avoid aorto-caval (wedge) compression;
- Monitor maternal and fetal parameters!!!

Loco-regional anesthesia is the preferred technique!!!

More complex airway management



- Vascular congestion and edema >tendency to bleed
- Uterine distension with cranial dislocation of the diaphragm>reduction CFR of 20-30% >Reduced maternal oxygen reserve with increased consumption of 40-60%!!
- Increased intragastric pressure with reduced tone of the lower esophageal sphincter,less acute His angle, gastric hyperacidity (⬆️ levels of gastrin of placental origin). Reduced gastric emptying during labor: PREGNANT PATIENTS CONSIDERED TO BE ON A FULL STOMACH!

⬇️

INCIDENCE OF FAILED INTUBATION 1:300!!!

Loco-regional anesthesia

- ⬆️ maternal satisfaction (early skin-to-skin)
- ⬆️ postpartum analgesia.

Which Anesthesia?

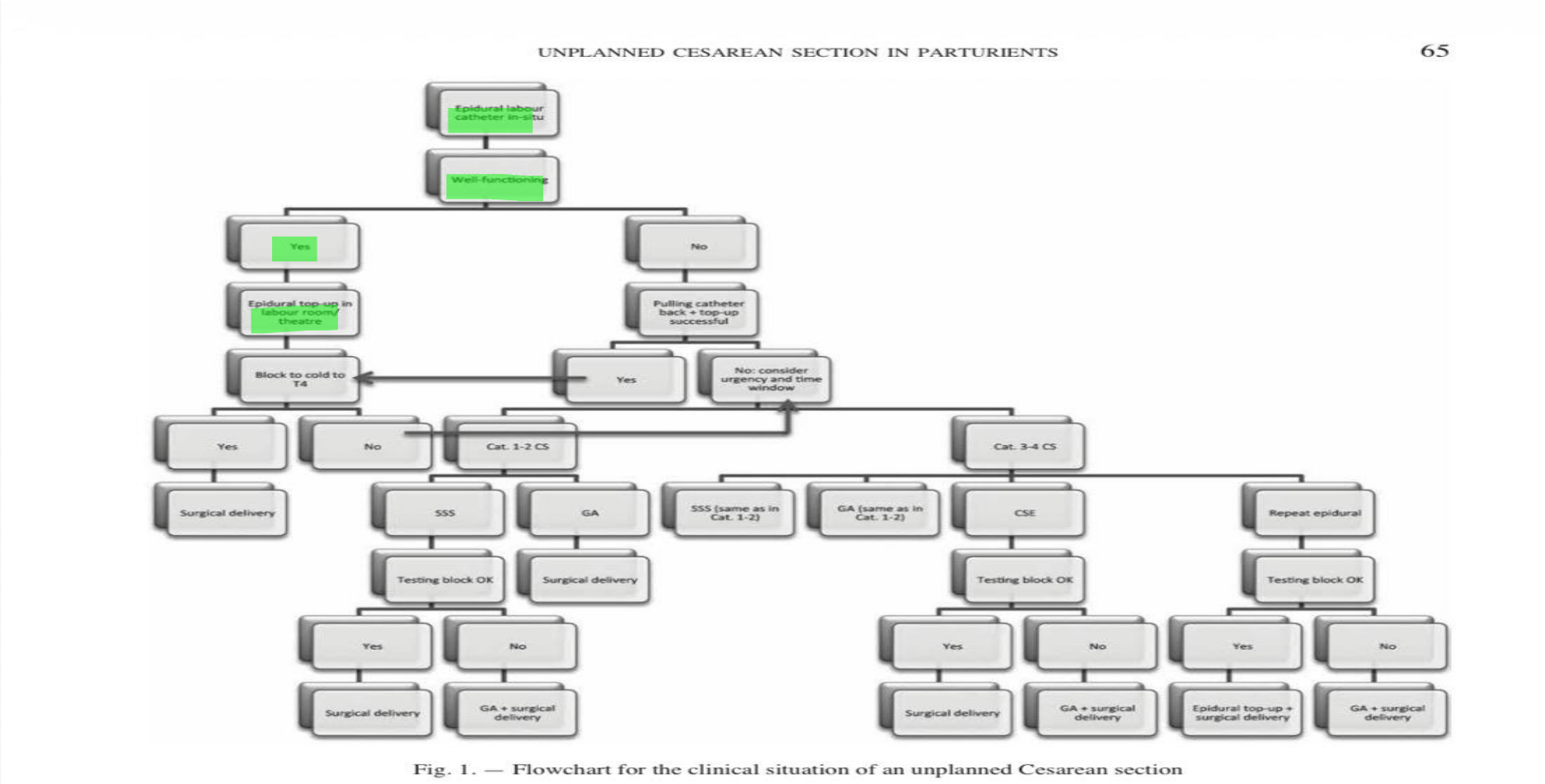


Fig. 1. — Flowchart for the clinical situation of an unplanned Cesarean section

Depuydt E, Van de Velde M. Unplanned cesarean section in parturients with an epidural catheter in-situ: how to obtain surgical anesthesia? *Acta Anaesthesiol Belg.* 2013;64(2):61–74.

CAESAREAN SECTION CODE RED/YELLOW

- The ideal situation is to have an epidural catheter already in place!
- Top-up (in labour room) with lidocaine 2% (1 mEq sodium bicarbonate 8.4%/10ml Local anaesthetic +Adrenaline 4 mcg) 15-20ml (rapid surgical plan 7-9')
- 5% of labor epidurals are not suitable for conversion to CT.

Reg Anesth Pain Med 2022;47(Suppl 1):A1–A315

In Utero Resuscitation (SPOILT)

PRACTICE PARAMETERS

Practice Guidelines for Obstetric Anesthesia

*An Updated Report by the American Society of Anesthesiologists Task Force on Obstetric Anesthesia and the Society for Obstetric Anesthesia and Perinatology**

nique used; (3) consider selecting neuraxial techniques in preference to GA for most cesarean deliveries; (4) if spinal anesthesia is chosen, use pencil-point spinal needles instead of cutting-bevel spinal needles; (5) for urgent cesarean delivery, an indwelling epidural catheter may be used as an alternative to initiation of spinal anesthesia; and (6) GA may be the most appropriate choice in some circumstances

Early Insertion of a Neuraxial Catheter for Complicated Parturients.

Literature Findings: The literature is insufficient to assess whether, when caring for the complicated parturient, the early insertion of a neuraxial catheter, with immediate or later administration of analgesia, improves maternal or neonatal outcomes.

Survey Findings: The consultants and ASA members strongly agree to consider early insertion of a neuraxial catheter for obstetric (*e.g.*, twin gestation or preeclampsia) or anesthetic indications (*e.g.*, anticipated difficult airway or obesity) to reduce the need for GA if an emergent procedure becomes necessary.

Anesthesiology 2016; 124:270-300

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http://dx.doi.org/10.1016/j.ijoa.2012.05.007

ELSEVIER
www.obstetanesthesia.com

ORIGINAL ARTICLE

Risk factors for failed conversion of labor epidural analgesia to cesarean delivery anesthesia: a systematic review and meta-analysis of observational trials

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[a] Department of Anesthesiology, University of Michigan Health System, Ann Arbor, MI, USA
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Risk factors for labor epidural conversion failure requiring general anesthesia for cesarean delivery

Shannon M. Grap, Gaurav R. Patel, Jessica Huang, Sonia J. Vaida
Department of Anesthesiology and Perioperative Medicine, Penn State Health Milton S. Hershey Medical Center, Hershey, Pennsylvania, United States

Risk factors:

- Increased number of boluses;
- Breakthrough pain during labor;
- Increased BMI;
- Increased duration of epidural analgesia;

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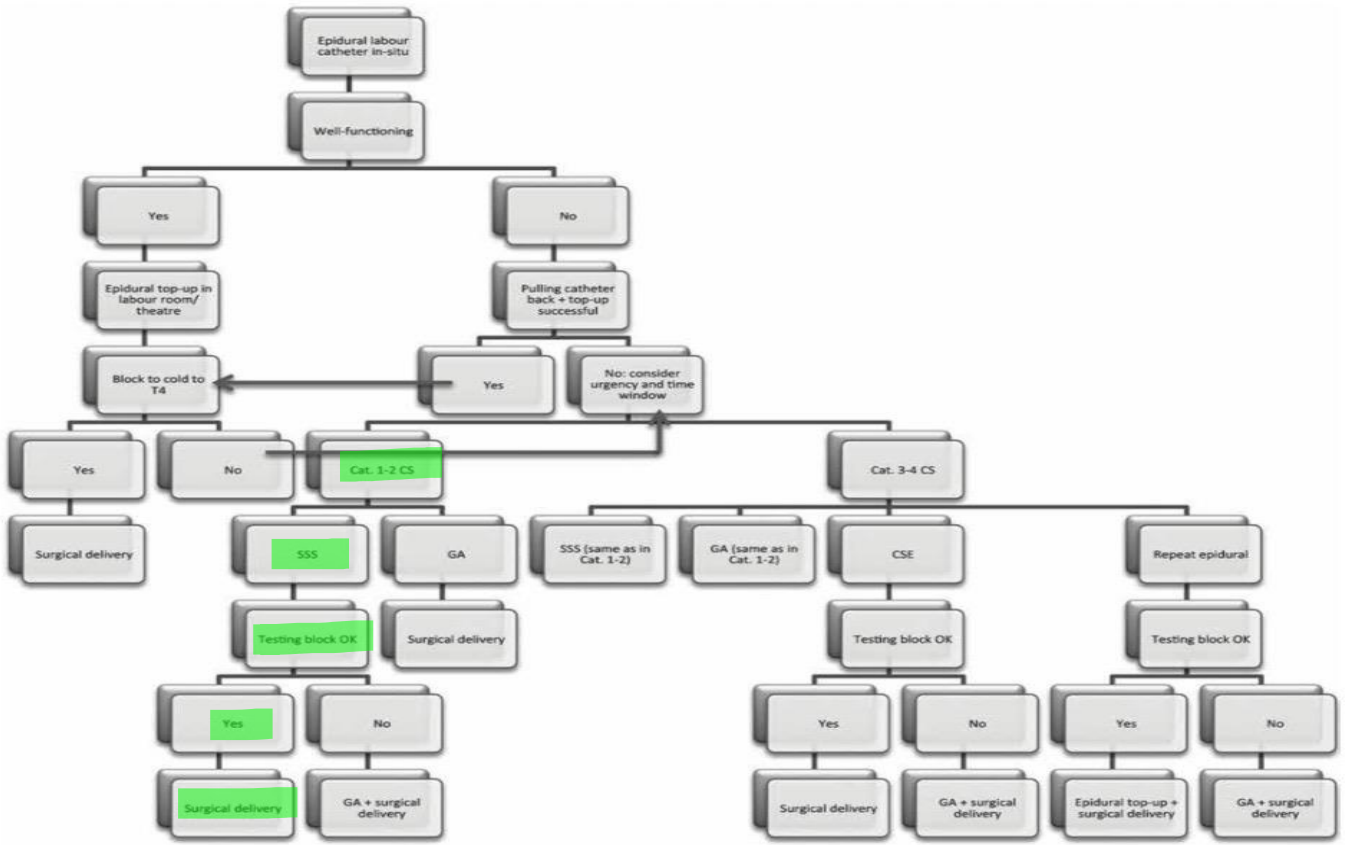

Fig. 1. — Flowchart for the clinical situation of an unplanned Cesarean section

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Anaesthesia
Journal of the Association of Anaesthetists of Great Britain and Ireland
Anaesthesia, 2010, 65, pages 664–669 doi:10.1111/j.1365-2044.2010.06368.x

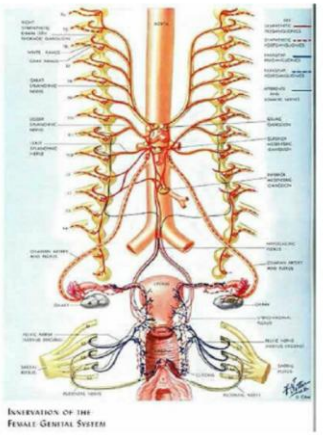
ORIGINAL ARTICLE

Rapid sequence spinal anaesthesia for category-1 urgency caesarean section: a case series

S. M. Kinsella,[1] K. Girgirah[2] and M. J. L. Scrutton[1]

Box 1: Components of the rapid sequence spinal (adapted from reference [4])

- Deploy other staff for intravenous cannulation and monitoring – don't inject spinal till cannula secured.
- Pre-oxygenate during attempt.
- 'No touch' technique – gloves only with glove packet as sterile surface for equipment. Skin prepared with single wipe of 0.5% chlorhexidine solution.
- If no opioid – consider increased dose hyperbaric bupivacaine 0.5% (up to 3 ml); add fentanyl 25 μg if procuring it does not produce unacceptable delay.
- Local infiltration not mandatory.
- One attempt at spinal unless obvious correction allows a second.
- If necessary start surgery when block ≥ T10 and ascending. Be prepared to convert to general anaesthesia – keep mother informed.



Dermatomeri e TC

T_4-T_8: afferenze da peritoneo

T_8-T_{10}: afferenze da annessi

T_{10}-L_2: afferenze da corpo e collo utero

S_1-S_5: afferenze da vescica e plica vescico-uterina

- Estensione ottimale dell'anestesia da T_4 a S_5

SCIE DOI: 10.14744/scie.2023.66674
South. Clin. Ist. Euras. 2023;34(2):103-107 Original Article

Rapid Sequence Spinal Anesthesia for Category 1 Cesarean Section: Is it Fast, Effective, and Reliable?

Kübra Taşkın,[1] Cansu Ofluoglu,[2] Hulya Yilmaz Ak,[1] İrem Durmuş,[1] Merve Bulun Yediyıldız,[1] Kemal Saracoglu,[1] Banu Cevik[1]

Table 1. Minimum-maximum and mean values of the processing times

	Min.-Max.	Mean (SD)
Preparation time (sec)	39–76	52.1±0.4
Application time (sec)	24–120	47.3±1.6

From the literature, it is difficult to determine the time required precisely and clearly to initiate the case with regional or GA in an emergency (category 1–3) CS. In the case series of Kinsella et al., the median duration of spinal preparation was 2 min.[7] Another observational study of emergency CS showed that the average time from wearing gloves to positioning the patient after spinal injection was 5 min.[15] In their study, Gunka and Douglas found a minimal difference between GA induction and spinal injection in anesthesia administration for simulated CS, with an median of 2 min 6 s for the first one and 1 min 58 s for the second.[16] Within the study conducted by Bhattacharya et al., RSGA and RSSA were compared, and 144.80±3.42 s with RSGA versus 131.20±3.40 s with RSSA; the shorter duration of SA with $p<0.001$ supports this study.[14] In this study, the application time was shorter than both the original time of Kinsella et al. and the other studies mentioned (preparation time 52.1±0.4 s, administration time 47.3±1.6 s). The reason for this is considered to be the changes made in the RSSA technique. Since the procedure is easier to perform in the sitting position, the spinal injection was performed in this position in this study, and this step was skipped since the patients already had intravenous access. For asepsis, a one-time wiping was applied with 0.5% chlorhexidine solution, which was proven to be adequate according to previous studies.[8,16]

Goals:

- To Reduce the use of general anesthesia;
- To Reduce the risks associated with general anesthesia and maternal mortality;
- To Reduce fetal risks associated with AG (worst Apgar)

BJA Education, 20(6): 201–207 (2020)
doi: 10.1016/j.bjae.2020.03.003
Advance Access Publication Date: 21 April 2020

General anaesthesia in obstetrics

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Current Anesthesiology Reports (2021) 11:18–27
https://doi.org/10.1007/s40140-021-00437-6

OBSTETRIC ANESTHESIA (LR LEFFERT, SECTION EDITOR)

The Current Role of General Anesthesia for Cesarean Delivery

Laurence Ring[1] · Ruth Landau[1] · Carlos Delgado[2]

Accepted: 2 February 2021 / Published online: 24 February 2021

Abstract

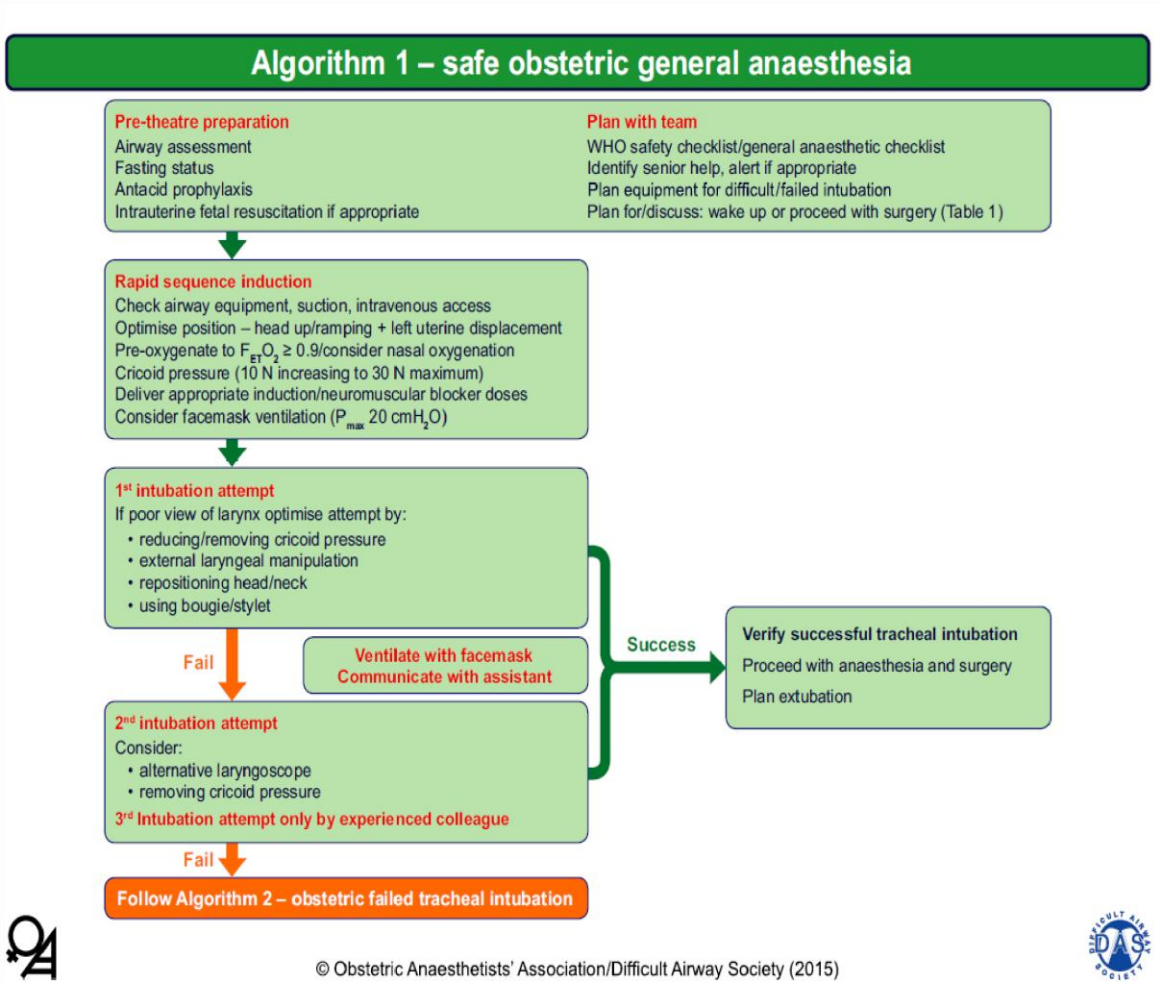
Purpose of the Review The use of general anesthesia for cesarean delivery has declined in the last decades due to the widespread utilization of neuraxial techniques and the understanding that neuraxial anesthesia can be provided even in urgent circumstances. In fact, the role of general anesthesia for cesarean delivery has been revisited, because despite recent devices facilitating endotracheal intubation and clinical algorithms, guiding anesthesiologists facing challenging scenarios, risks, and complications of general anesthesia at the time of delivery for both mother and neonate(s) remain significant. In this review, we will discuss clinical scenarios and risk factors associated with general anesthesia for cesarean delivery and address reasons why anesthesiologists should apply strategies to minimize its use.

Recent Findings Unnecessary general anesthesia for cesarean delivery is associated with maternal complications, including serious anesthesia-related complications, surgical site infection, and venous thromboembolic events. Racial and socioeconomic

General Anesthesia in rapid sequence

WHEN?

- Loco-regional anesthesia failure;
- Severe bleeding with hemodynamic instability;
- Coagulopathies;
- Anticoagulant therapy;
- Sepsis;
- Lumbar area infection;
- Intracranial hypertension;
- Extreme emergencies;

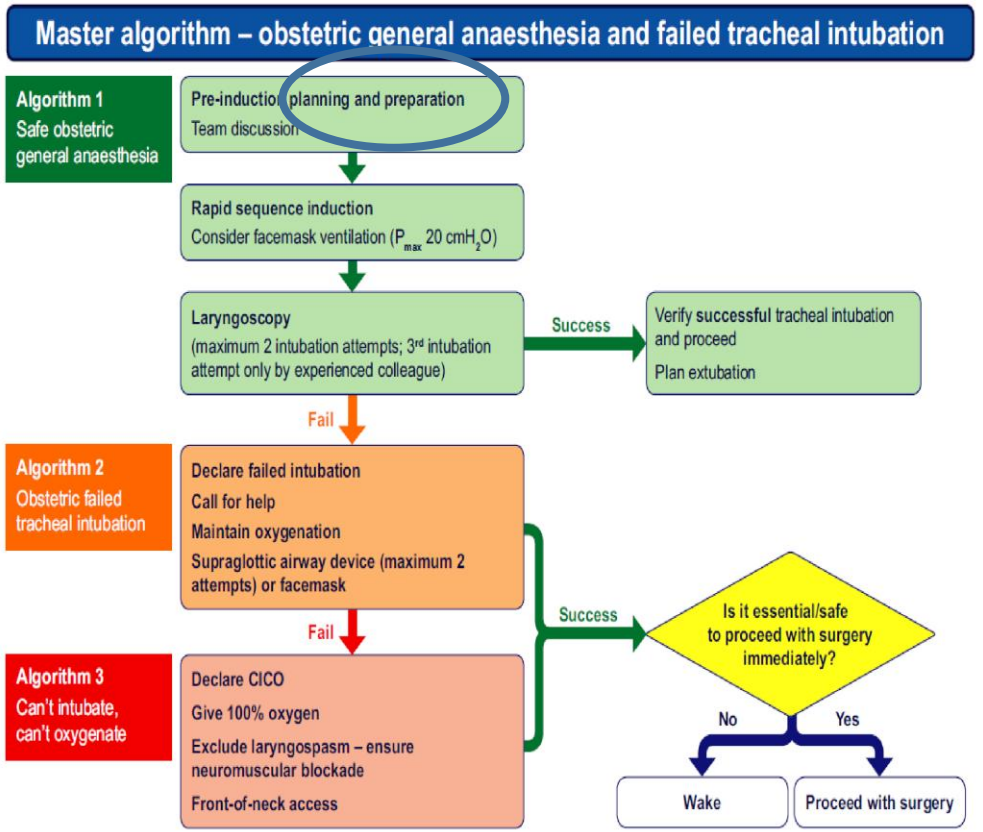


Anaesthesia 2015, 70, 1286–1306 doi:10.1111/anae.13260

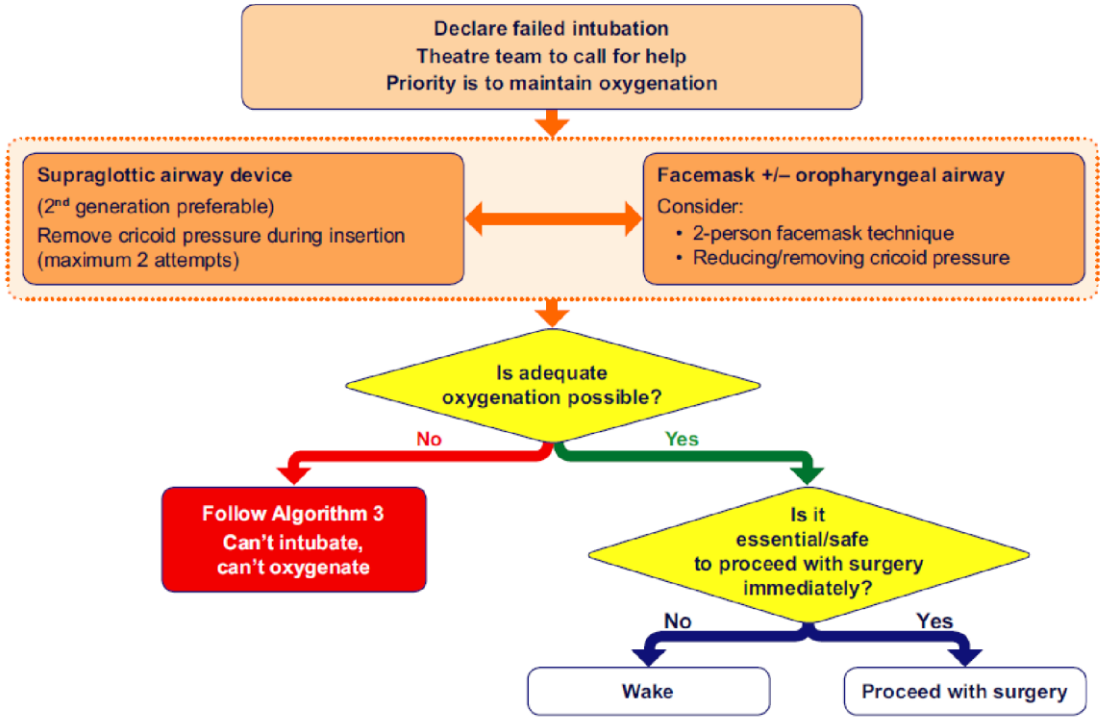
Guidelines

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

M. C. Mushambi,[1] S. M. Kinsella,[2] M. Popat,[3] H. Swales,[4] K. K. Ramaswamy,[5] A. L. Winton[6] and A. C. Quinn[7,8]



Algorithm 2 – obstetric failed tracheal intubation



Take-home messages:

- THE CHOICE OF ANESTHESIOLOGICAL TECHNIQUE IS MULTIFACTORIAL, PREFERRING NEURO-AXIAL ANESTHESIA;
- CAREFUL EVALUATION OF PATIENTS IN THE LABOR ROOM AND MULTIDISCIPLINARY MANAGEMENT IS RECOMMENDED;
- COMMUNICATION BETWEEN THE VARIOUS FIGURES INVOLVED IS IMPORTANT;
- IMPORTANCE OF SIMULATION;
- EPIDURAL TOP-UP AND SINGLE-SHOT SPINAL ANESTHESIA ARE TECHNIQUES AS RAPID AS AG;

One for all and all for one!