European Society of
Regional Anaesthesia
& Pain Therapy

ESRA ITALIA

ESRA Italian Chapter

XXVIII CONGRESSO NAZIONALE

PRESIDENTE
DEL CONGRESSO
Luciano Calderone

MZ EVENTS

PALERMO 5-7 Ottobre
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Triage – priorità – gravità: il linguaggio

Ospedale Isola Tiberina
GEMELLI ISOLA

DAJE TEAM
Delivery Analgesia Jet Emergency

Maria Grazia Frigo

UO INTERDIPARTIMENTALE ANESTESIA E RIANIMAZIONE OSTETRICA GEMELLI ISOLA
RESPONSABILE SIAARTI SEZIONE CURE MATERNO INFANTILI
RESPONSABILE SCIENTIFICO DAJE

SIAARTI
PRO VITA CONTRA DOLOREM SEMPER

Two individuals involved
Emotional impact
Changes induced by pregnancy

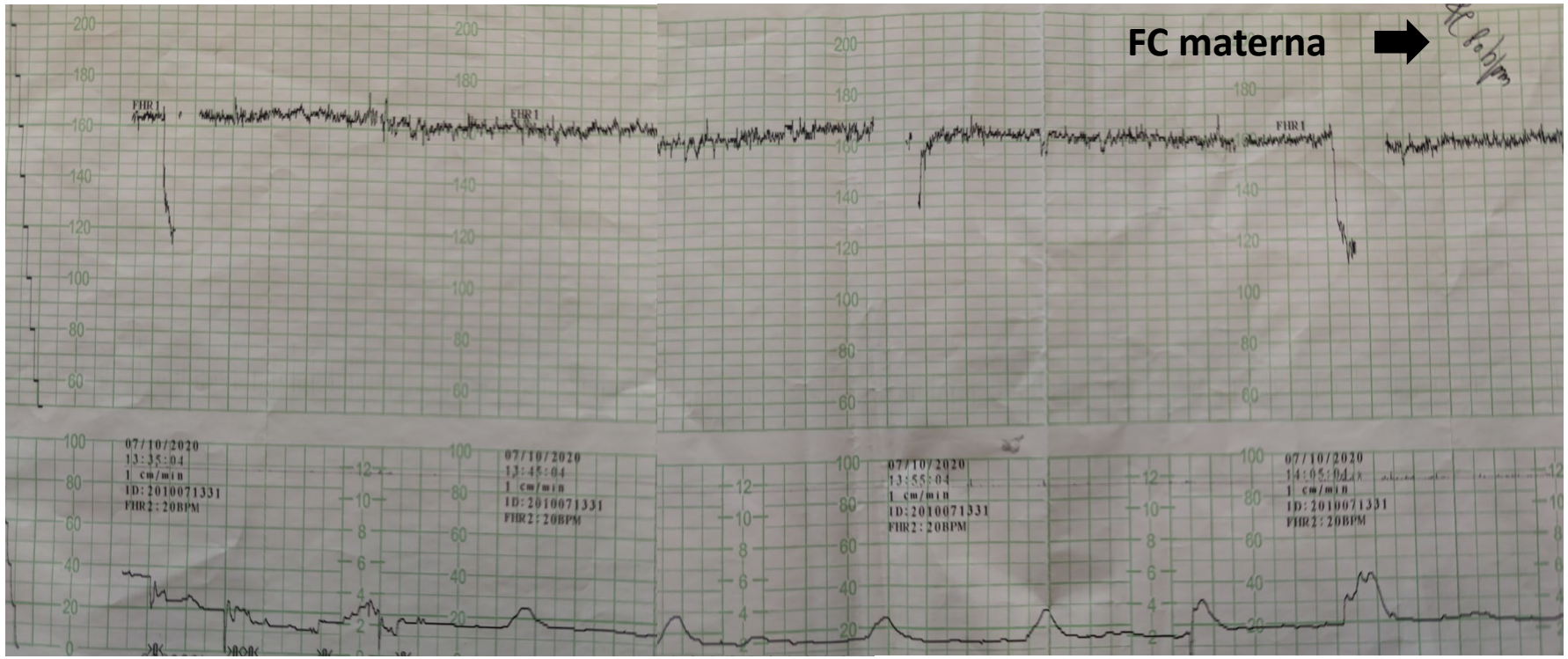
- P.S.O. 1:58 pm
- woman 34 years
- Spontaneous pregnancy
- 36°w+6
- P 1/0/0/1 (PS 2014)
- Abdominal pain
- PA 100/70 mmHg, FC 80 bpm, T° 36,5°

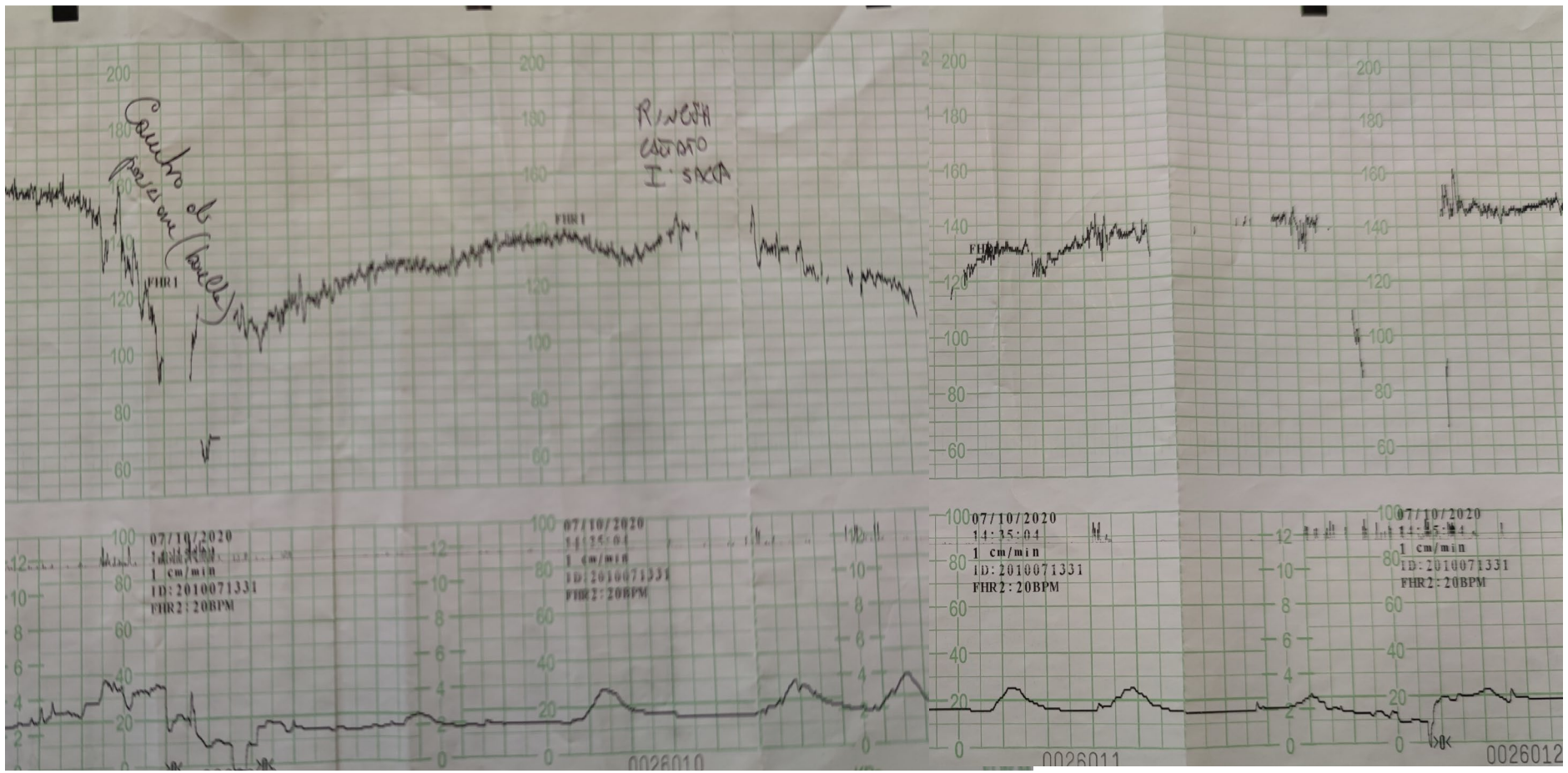
CLINICAL CASE

ESAME OBIETTIVO

Data e Ora **07/10/2020 13:14:02** Medico GINECOLOGO

Ge e vagina regolari. Collo posteriore, racc. al 50%, pervio ampiamente al dito. MAC integre. PP cefalica ballottabile. Assenza di perdite ematiche e di LA al momento della visita.
Si esegue CTG e si invia emocromo urgente.


FC materna
07/10/2020
13:35:04
1 cm/min
ID:2010071331
FHR2:20BPM
07/10/2020
13:45:04
1 cm/min
ID:2010071331
FHR2:20BPM
07/10/2020
13:55:04
1 cm/min
ID:2010071331
FHR2:20BPM
07/10/2020
14:05:04
1 cm/min
ID:2010071331
FHR2:20BPM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07/10/2020
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1 cm/min
ID:2010071331
FHR2:20BPM
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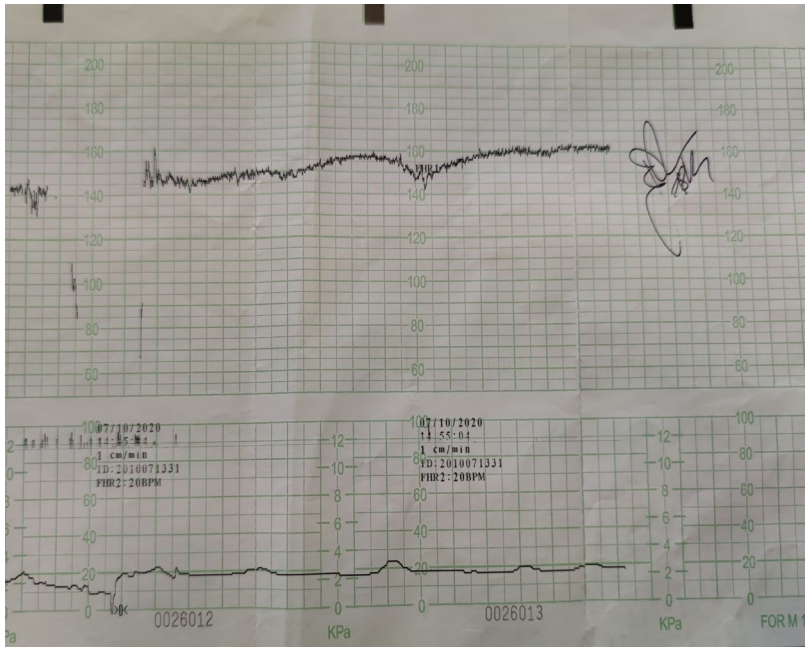
0026011
0026012



2015 revised FIGO guidelines on intrapartum fetal monitoring

	Normal	Suspicious	Pathological
Baseline	110-160 bpm	Lacking at least one characteristic of normality, but with no pathological features	< 100 bpm
Variability	5-25 bpm		Reduced variability. Increased variability. Sinusoidal pattern.
Decelerations	No repetitive* decelerations		Repetitive* late or prolonged decelerations for > 30 min (or > 20 min if reduced variability). Deceleration > 5 min
Interpretation	No hypoxia/acidosis	Low probability of hypoxia/acidosis	High probability of hypoxia/acidosis
Clinical management	No intervention necessary to improve fetal oxygenation state	Action to correct reversible causes if identified, close monitoring or adjunctive methods	Immediate action to correct reversible causes, adjunctive methods, or if this is not possible expedite delivery. In acute situations immediate delivery should be accomplished

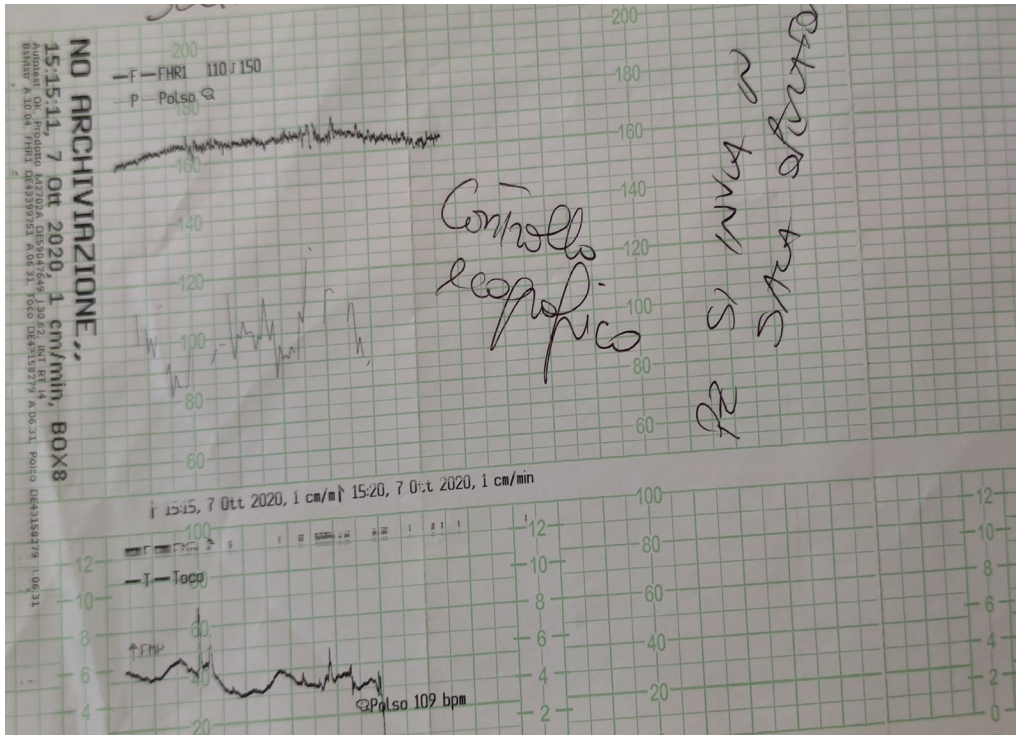
*Decelerations are repetitive when associated with > 50% contractions.
Absence of accelerations in labour is of uncertain significance.

Data e Ora **07/10/2020 14:51:22** Medico **GINECOLOGO**

CTG ACOG tipo II ridotta variabilità assenza di accelerazioni, assenza di decelerazioni in più di 60 minuti e dopo somministrazione di liquidi per via ev (ringer lattato 500 cc).
ECO office BCF e MAF presenti, LA regolare, flussimetria nella norma (mancanza di carta ecografica per registrare immagini).

- **15:20 pm woman in the delivery room**

15:30 pm



We decide for urgent c-section
Si decide per TC d'emergenza
(tachycardia fetal, reduced variability,suspected occult placental abruption)

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15:30 pm → **Entry into the Operating Room**

15:35 pm → **Subarachnoid Spinal Block,Fetal Heart, LUD**

15:45 pm → **Start of Surgery**

Descrizione dell'intervento

Disinfezione della cute addominale e dei genitali esterni. Laparotomia sec Pfannensteil. Incisione e scollamento della plica vescico-uterina ed isterotomia trasversa sul S.U.I. che appare assottigliato. Fuoriuscita di imponente quantità di sangue misto a liquido amniotico (circa 1800 cc) con evidenza di massivo distacco di placenta. Rapida ed agevole estrazione

15:46 pm birth (3170 gr)

APGAR SCORE: 1’ 5 ➡ 5’ 8

Referto campione paziente

Stato: ACCETTATO
Analisi: 07/10/2020 16:05:06
Tipo campione: Venoso
ID Operatore:

Paziente
ID:
Cognome:
Nome:
Data di nascita:

Cartuccia
Lotto N°: 200702H
S/N: 400324629
Scadenza: 01/11/2020

Analizzatore
Modello: GEM® Premier 4000
Area: S.PARTO
Nome: SALA PARTO
S/N: 15088962

Risultati

			Crit. Basso	Riferimento Basso	Riferimento Alto	Crit. Alto
Misurati (37.0°C)						
pH	7.19		[--	--	--	--]
pCO_2	49	mmHg	[--	--	--	--]
pO_2	15	mmHg	[--	--	--	--]
Na^+	132	mmol/L	[--	--	--	--]
K^+	4.4	mmol/L	[--	--	--	--]
Cl^-	99	mmol/L	[--	--	--	--]
Ca^{++}	1.52	mmol/L	[--	--	--	--]
Glu	75	mg/dL	[--	--	--	--]
Lac	7.6	mmol/L	[--	--	--	--]
Derivati						
TCO_2	20.2	mmol/L	[--	--	--	--]
BEecf	-9.5	mmol/L	[--	--	--	--]
BE(B)	-9.6	mmol/L	[--	--	--	--]
Ca^{++}(7.4)	1.39	mmol/L	[--	--	--	--]
AG	19	mmol/L	[--	--	--	--]
sO_2(c)	11.9	%	[--	--	--	--]
HCO_3 (c)	18.7	mmol/L	[--	--	--	--]
HCO_3 std	15.1	mmol/L	[--	--	--	--]

ISOLA TIBERINA
SALA PARTO
Stampato: 07/10/2020 16:03:28

Referto campione paziente

Stato: ACCETTATO
Analisi: 07/10/2020 16:01:07
Tipo campione: Arterioso
ID Operatore:

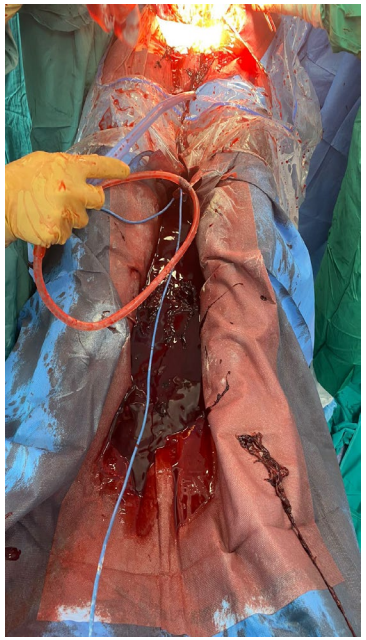
Paziente
ID:
Cognome:
Nome:
Data di nascita:

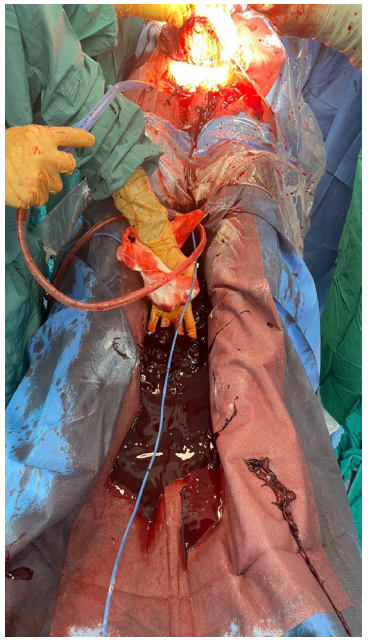
Cartuccia
Lotto N°: 200702H
S/N: 400324629
Scadenza: 01/11/2020

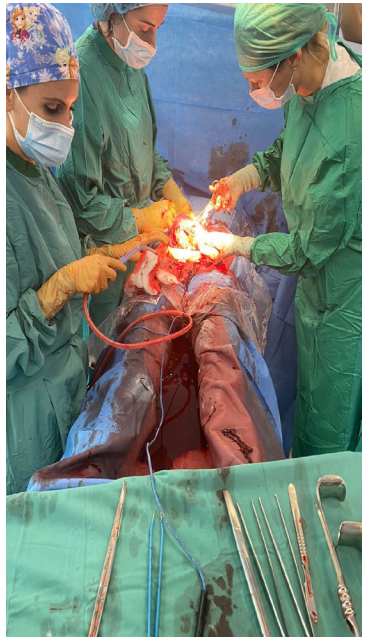
Analizzatore
Modello: GEM® Premier 4000
Area: S.PARTO
Nome: SALA PARTO
S/N: 15088962

Risultati

			Crit. Basso	Riferimento Basso	Riferimento Alto	Crit. Alto
Misurati (37.0°C)						
pH	7.21		[--	--	--	--]
pCO_2	49	mmHg	[--	--	--	--]
pO_2	10	mmHg	[--	--	--	--]
Na^+	130	mmol/L	[--	--	--	--]
K^+	7.7	mmol/L	[--	--	--	--]
Cl^-	100	mmol/L	[--	--	--	--]
Ca^{++}	1.48	mmol/L	[--	--	--	--]
Glu	67	mg/dL	[--	--	--	--]
Lac	8.2	mmol/L	[--	--	--	--]
Derivati						
TCO_2	21.1	mmol/L	[--	--	--	--]
BEecf	-8.3	mmol/L	[--	--	--	--]
BE(B)	-8.4	mmol/L	[--	--	--	--]
Ca^{++}(7.4)	1.37	mmol/L	[--	--	--	--]
AG	18	mmol/L	[--	--	--	--]
P/F Ratio	Incalc	mmHg	[--	--	--	--]
pAO_2	Incalc	mmHg	[--	--	--	--]
sO_2(c)	6.4	%	[--	--	--	--]
HCO_3 (c)	19.6	mmol/L	[--	--	--	--]
HCO_3 std	15.9	mmol/L	[--	--	--	--]







DDI

16 minutes

Why triage in the delivery room?

Because the obstetric emergency is:

UNPREDICTABLE
MULTIFACTORIAL
DRAMMATIC

Correct triage can facilitate the identification of care priorities related to the severity of the individual case

CONTEXTUALIZED TRIAGE

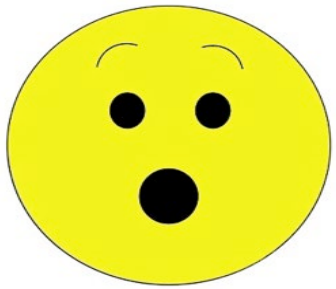
OBSTETRICIAN TRIAGE, WHAT ?

- Access care based on the severity of the mother and/or fetus.
- Adequate and appropriate assistence.
- The triage code is assigned based on the information obtained from the interview with the woman and from the information in the medical record.

GREEN CODE

- ✓ Physiological history (obstetric and medical)
- ✓ Single fetus, cephalic presentation
- ✓ Absence of known fetal pathology
- ✓ CTG normality
- ✓ Gestational age 37-41+3 week
- ✓ Fetal weght tra 2500-4000 gr
- ✓ Normal placenta lacation
- ✓ Spontaneous Labor
- ✓ Normal amniotic fluid

YELLOW CODE



✓ MATERNAL ANTENATAL

PREECLAMPSIA-GESTAZIONAL HYPERTENSION-CHRONIC HYPERTENSION
DIABETES (OR GESTATIONAL)
UTERINE MYOMAS
PROM >24 HOURS
PREVIOUS C-SECTION
HEART DISEASE, VASCULAR DISEASE, HYPOTHYROIDISM, ANEMIA, KIDNEY DISEASE, AUTOIMMUNE DISEASE.

✓ FETAL ANTENATAL

PREMATURE
IUGR
TWINS
PROBLEMS WITH AMNIOTIC FLUID
ALTERATIONS CTG

✓ PERI/INTRAPARTUM

LABOR INDUCTION
ALTERATIONS CTG
HYPERPIREXYA DURING LABOR
BLEEDING DURING LABOR

RED CODE

- ✓ Placental Abruption
- ✓ Umbilical Cord Prolapse
- ✓ Placenta Praevia
- ✓ Eclamptic Crisis
- ✓ Uterine rupture
- ✓ Bradycardia fetal

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OBSTETRIC EMERGENCY

Life-threatening situation for the mother/fetus/newborn

Emergencies in obstetrics are dramatic rare events e often unpredictable and involve involvement of a multidisciplinary team made up of different professionals (gynecologist, midwife, nurse, neonatologist, pediatrician, anesthetist)

DECISION TO DELIVERY TIME: 30 MINUTES

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OBSTETRIC EMERGENCY IN THE DELIVERY ROOM

MATERNAL EMERGENCIES

Hemorrhagic components:

- Placenta praevia
- Placental Abruption
- Uterine Rupture
- DIC
- HELLP Syndrome

Without hemorrhagic component:

- Amniotic fluid embolism
- Preeclampsia-eclampsia

FETAL EMERGENCIAS

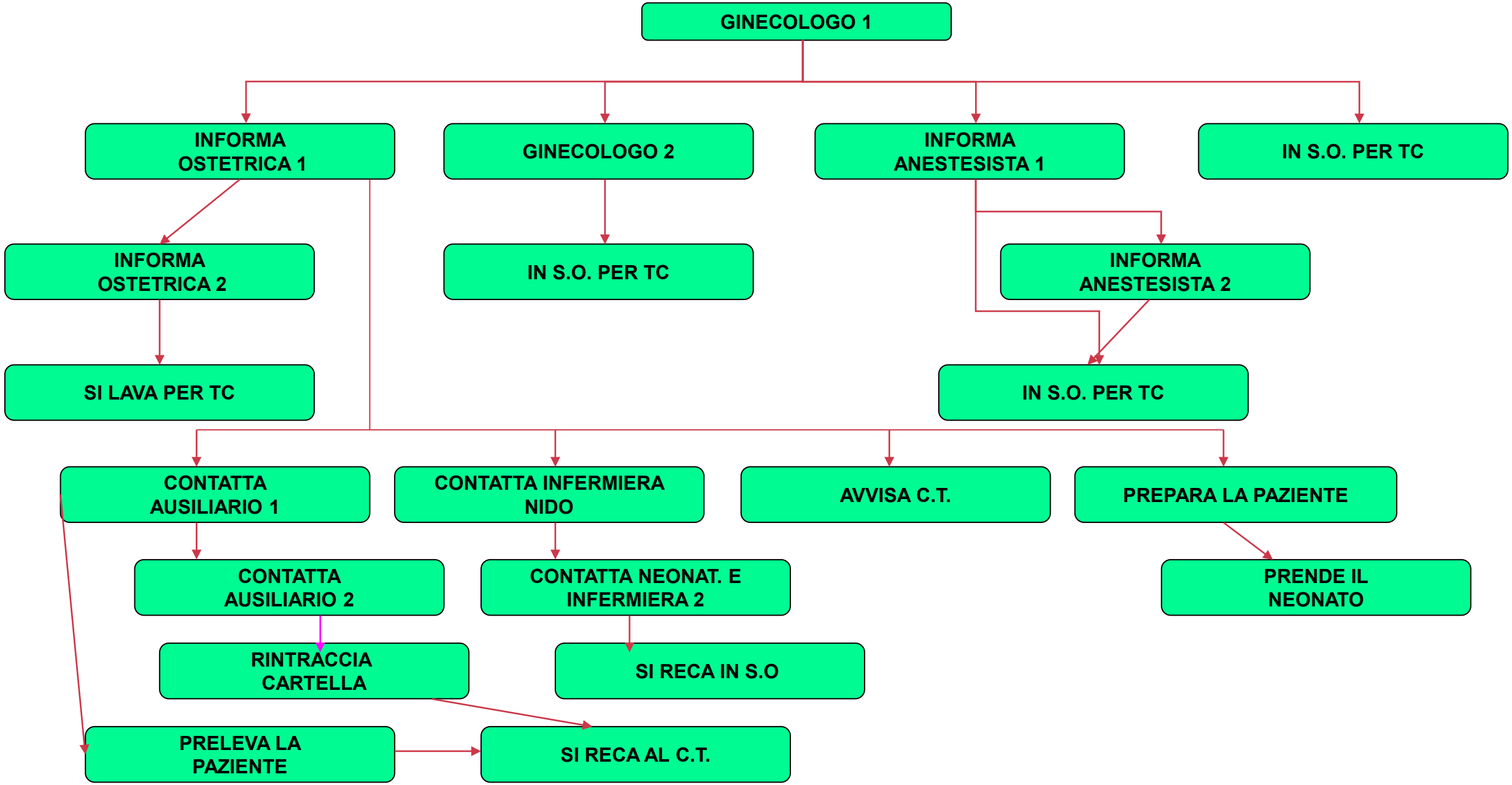
- Hypoxia acute in labor
- Umbilical cord prolapse
- Shoulder dystocia

….but if LIFE-THREATENING FOR THE MOTHER AND/OR FETUS:

DECISION TO DELIVERY TIME: 15 MINUTES

- Abruptio placenta with a live fetus
- Uterine Rupture
- Placenta praevia with bleeeding
- Umbilical cord prolapse
- Bradycardia fetal,not responsive to therapy
- Impossibility of vaginal birth for the second twin

ALGORITHM RED CODE



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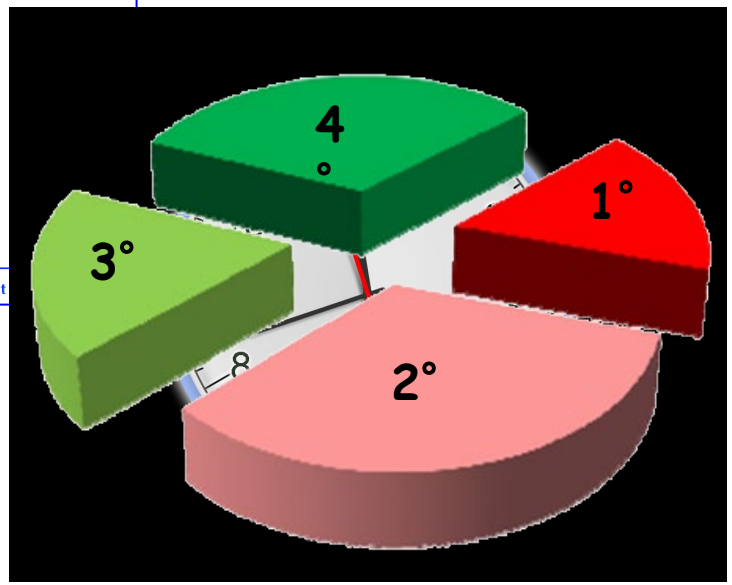
Where we start from...

The National Sentinel Caesarean Section Audit

The National Sentinel Caesarean Section Audit Report

RCOG Clinical Effectiveness Support Unit

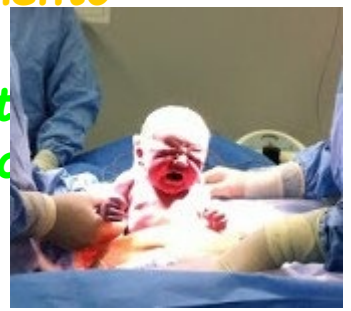
7. Classification of urgency of caesarean section



DECISION-TO DELIVERY TIME

in the Audit, the median decision-to-delivery time for the cases included in the category 'immediate threat to the life of the mother or the fetus' and meeting clinical criteria of urgency was **27 minutes**

1. *Trattamento immediato per la sopravvivenza della madre e/o del feto (16%)*
2. *Compromissione delle condizioni della*
   trattamento
3. *re il part*
   e del
4. *ento del parto*
   la madre e per l'equipe



The National Sentinel Caesarean Section Audit. Thomas J, Callwood A, Brocklehurst P, Walker J. BJOG. 2000 May

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RACOMMENDATION / GUIDELINES

Royal College of Obstetricians & Gynaecologists

NICE
National Institute for Health and Care Excellence

Tabella 2. La classificazione di Lucas[5]

1. Emergency	immediate threat to life of woman or fetus
2. Urgent	maternal or fetal compromise which is not immediate life-threatening
3. Scheduled	needing early delivery but no maternal or fetal compromise
4. Elective	at a time to suit the woman and maternity team

Lg LINEA GUIDA

SNLG ISS

Taglio cesareo: una scelta appropriata e consapevole

Seconda parte

Figure 1. A classification relating the degree of urgency to the presence or absence of maternal or fetal compromise

Urgency	Definition	Category
Maternal or fetal compromise	Immediate threat to life of woman or fetus	1
	No immediate threat to life of woman or fetus	2
	Requires early delivery	3
No maternal or fetal compromise	At a time to suit the woman and maternity services	4

Si raccomanda di utilizzare la seguente versione modificata della classificazione di Lucas:

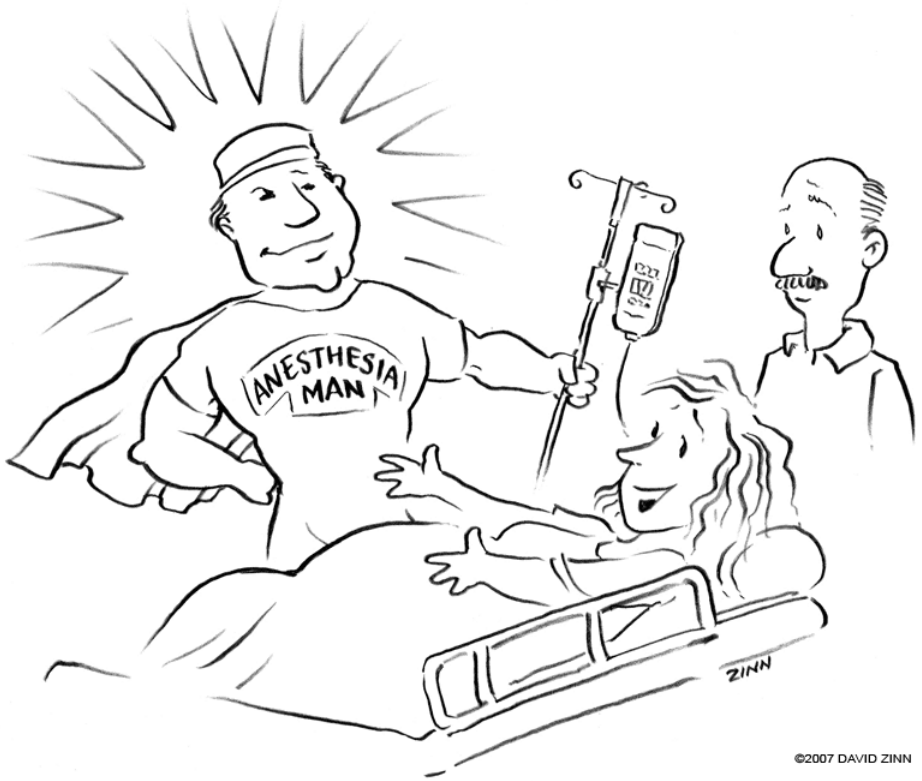
- **codice rosso – pericolo immediato per la vita della madre e/o del feto**
- **codice giallo – compromissione delle condizioni materne e/o fetali che non costituisce un immediato pericolo di vita**
- **codice verde – assenza di compromissione delle condizioni materne e/o fetali, ma necessità di anticipare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

QUESTION SAFETY

Anesthetist,

not only pain control

but also emergency management

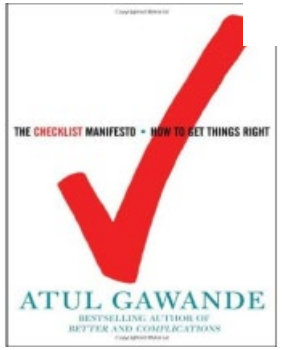


WHAT TOOLS WE HAVE AVAILABLE?

OBSTETRICIAN TRIAGE: identify protocols and specific care

GUIDELINES for different clinical situation

CHECKLIST analyze critical points



TRAINING/SIMULATION: teamwork, emergency, comunication

DAJE TEAM
Delivery Analgesia Jet Emergency

Meows Modified Early Obstetric Warning System Anaesthesia 2012


GRAZIE