Congresso Nazionale IRC

2019

11 · 12 OTTOBRE

Centro Congressi **Veronafiere**

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Hub and Spoke: un Modello Organizzativo con Nuove Esigenze Formative

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Documento Sezione I del Consiglio Superiore di Sanita'del 2005 in merito all'istituzione di un Sistema Integrato per l'Assistenza al Trauma Maggiore (SIAT)

DM 70 9/07/2015 "Sugli standard qualitativi, strutturali, tecnologici e quantitativi relativi all'assistenza ospedaliera".

Conferenza Stato Regioni del 30/10/2017: Linee Guida per la revisione delle reti cliniche-le reti tempo-dipendenti

Trauma and emergency System in Italy: DM 70

Trauma System is an inclusive organization where hospitals are categorized in three levels, based on the available resources

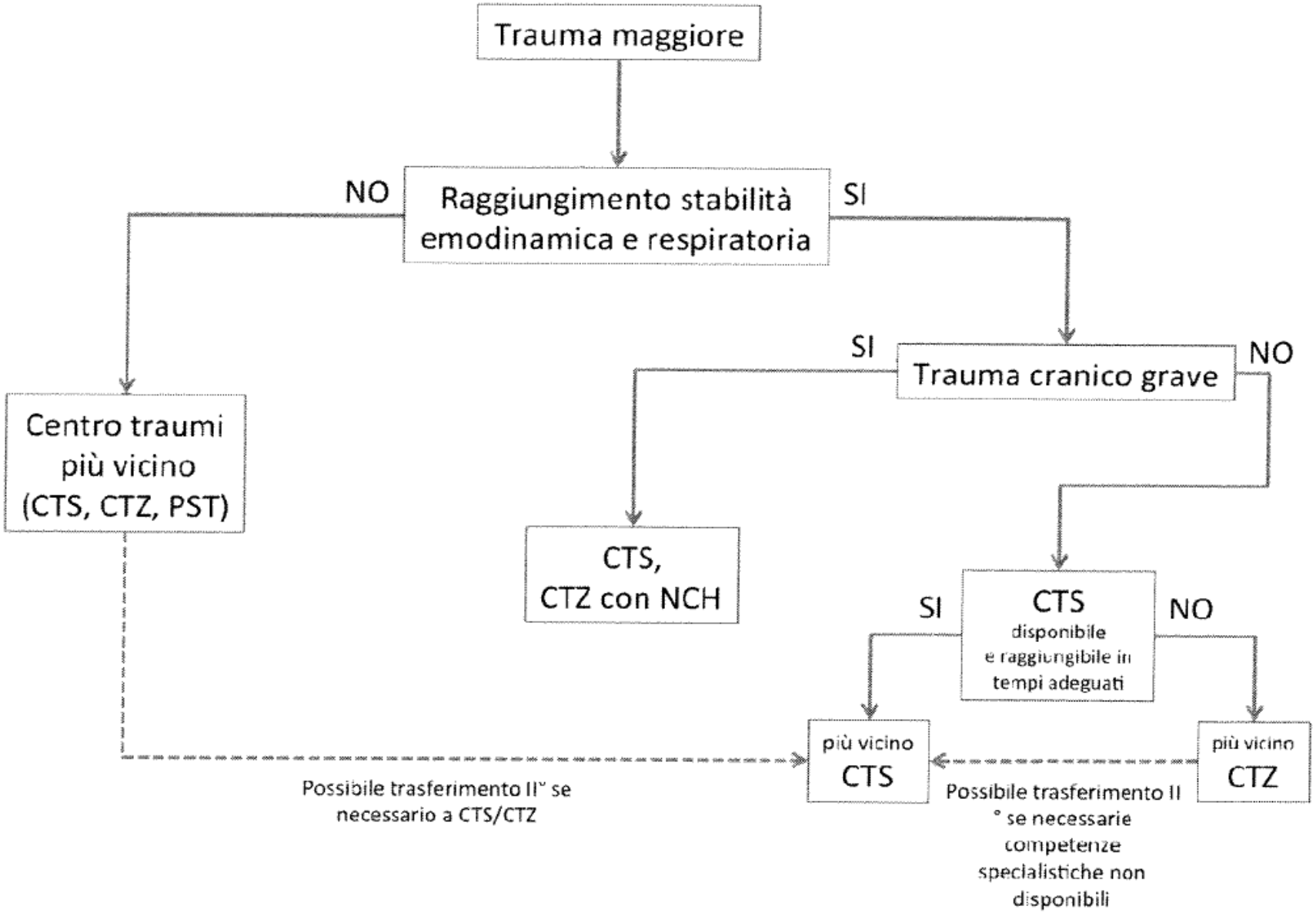
CTZ area trauma center

CTS high specialization trauma center

Ph emergency service 112

Level 3: PST emergency hospital in remote areas

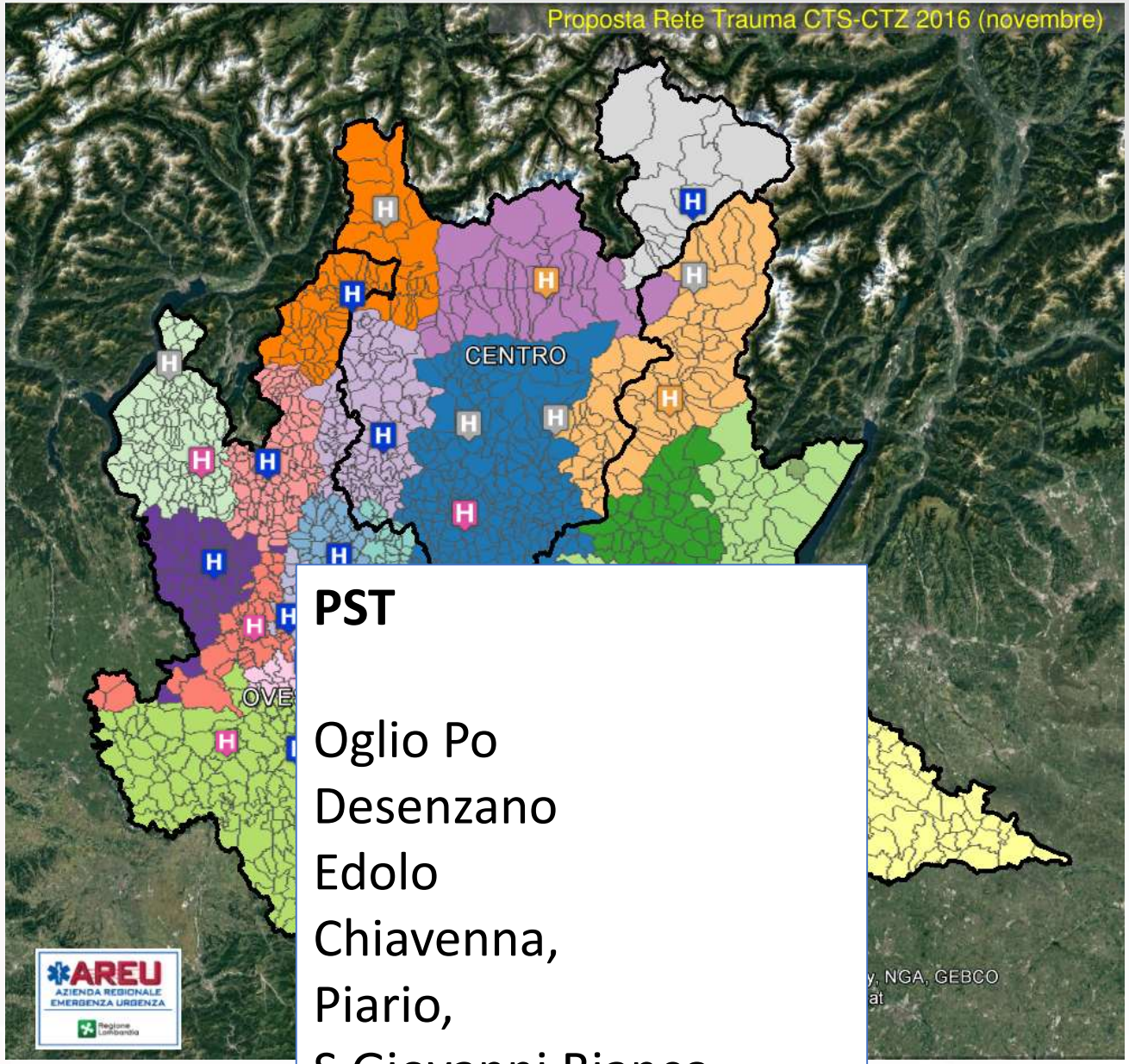
TRAUMA TEAM


Trauma maggiore
Raggiungimento stabilità emodinamica e respiratoria
NO
SI
Centro traumi più vicino (CTS, CTZ, PST)
Trauma cranico grave
SI
NO
CTS, CTZ con NCH
CTS disponibile e raggiungibile in tempi adeguati
SI
NO
più vicino CTS
più vicino CTZ
Possibile trasferimento II° se necessario a CTS/CTZ
Possibile trasferimento II° se necessarie competenze specialistiche non disponibili

(a) Tre SIAT, 27 strutture di cui 6 CTS, 14 CTZnch, 7 PST

(b) Entro 1 ora su gomma e' sempre raggiungibile un ospedale della rete – Pazienti instabili- Centralizzazione secondaria

(c) Registro Traumi, verifica di qualita', mobilita' del personale tra le strutture della rete



PST

Oglio Po
Desenzano
Edolo
Chiavenna,
Piario,
S.Giovanni Bianco,
Luino Osp. Confalonieri

ANNO 2015

MODIM	Numero	%
Ordinaria	1553	41.6
Volontaria	17	0.4
Trasf. Osp. x acuti	303	8.1
Deceduto	1083	29.0
RSA	39	1.0
Altra riab	179	4.8
Ist Riabil.	552	14.8
ADI	9	0.2
totale	3735	100

Distribuzione per categoria

Categoria	Totali (%)	% decessi	% trasf
CTS	1393 (37.3)	20.1	9.0
CTZnch	800 (21.4)	26.4	7.5
CTZ	276 (7.4)	37.7	7.2
PST	1019 (27.3)	42.1	7.8
Altro	247 (6.6)	-	-
Tot no CTS	2095 (56.1)	34.2	7.5

Valid records 1756 **July 1 – december 31, 2018**

- Discharged from ED 703 (40.03%)
- Invalid records 72

Admitted patients 981

- Ph criteria 751 (76.6%)
- Hosp criteria BLS 203 (20
- Voluntary presentation 19 (1.9%)
- Transferred 8 (0.8%)

Total deaths: 246 (14%)

DOS 151 (61.4%)

DOA/DER 28 (11.4%)

Deaths after adm. 67 (27.2%)

	EMS alert	ISS ≥ 16 (%)	Hosp crit.	ISS ≥ 16 (%)	ISS ≥ 16 tot. (%
Fatebene	46	5 (10.9)	10	1(10)	6(11.
Humanitas	36	7 (19.4)	5	1(20)	8(19.5)
Citta' Studi	10	-	19	3(15.8)	3(10.3)
Policlinico	80	18 (22.5)	18	4(22.2)	22(22.4)
Legnano	97	28 (28.9)	68	8(11	
San Carlo	87	18 (20.7)	24	5(20	
HSR	58	19 (32.8)	32	14(43.7)	33(36.6)
S.Gerardo	148	64 (43.5)	20	12(60)	76(45.23)
Niguarda	176	99 (56.2)	34	21(61.8)	120(57.2)
TOTALI	738	258 (35.0)	230	69(30)	327(33.8)

1.77 major trauma/day

63.2% of ISS≥16 with alert are transported to CTS

Data from 968 pts

UNDERTRIAGE: 68 pts (6.9%)ISS > 15 WITH BLS or self presented

variable	#
Total number	68 (60% M)
ISS 16-24	46 (67.7%)
ISS > 24	22 (32.4%)
Age IQR 25-75	54.5 36-76
Not survived	12 (17.6%)

mechanism	%
Low energy fall	39.6
Motorcycle	13.2
Pedestrian	11.8
Car occupant	10.3
High energy fall	7.4
Bicycle	5.4

MAIN INJURIES IN UNDERTRIAGED PATIENTS

injury	#	AIS 3	AIS 4	AIS 5
Brain or brain stem	33	3	14	12
Rib cage	10	9	1	
Pelvic fracture	8		5	2
Lung contusion	8	5	3	
Femur fracture	5	5		

Attivazione del trauma team:

- Medico vie aeree
- Medico procedure
- Tecnico radiologia
- (2) Infermieri

- Esame clinico (valutazione primaria)

- Accertamenti di primo livello (rx torace, rx pelvi, e-FAST)

- Provvedimenti di emergenza di stabilizzazione cardiorespiratoria

- Valutazione secondaria, accertamenti di secondo livello

TRATTAMENTO DEFINITIVO SE RISORSE DISPONIBILI IN SEDE

TRASFERIMENTO A CENTRO DI LIVELLO SUPERIORE

1. Basic concepts in trauma care, the ABCDE priorities

ATLS®

ETC ®

Resuscitation (2007) 74, 135–141

ELSEVIER

RESUSCITATION

www.elsevier.com/locate/resuscitation

TRAINING AND EDUCATIONAL PAPER

The European Trauma Course—From concept to course☆

Karl Thies[a], Carl Gwinnutt[b,*], Peter Driscoll[b], António Carneiro[c], Ernestina Gomes[c], Rui Araújo[c], Mary Rose Cassar[d], Mike Davis[e]

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2. TECHNOLOGIES

Modular UltraSound
MUSEC
ESTES Course

Promoted by

SOCIETÀ ITALIANA DI CHIRURGIA D'URGENZA E TRAUMA

European Society for Trauma and Emergency Surgery
ESTES

Modular UltraSound ESTES Course

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Basic Endovascular Skills for Trauma (BEST)

3.

Materials

- Vascular Intervention System Training Simulator – C (Mentice VIST-C, Evanston IL)
- Didactic session
- Pre-test
- 6 timed trials REBOA
- 3 in Zone I, 3 in Zone III
- Post-test

DSTC teaching and lab

Advanced Trauma Operative Management

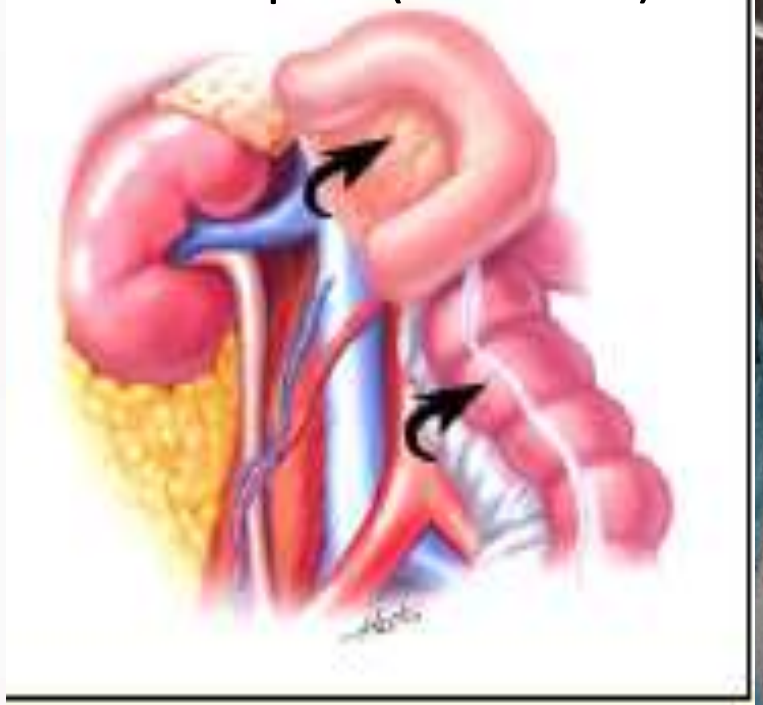
4.

AMERICAN COLLEGE of SURGEONS

Dedicated to improving the care of the surgical patient and to safeguarding standards of care in an optimal and ethical practice environment.

5 hours lab
student/teacher 1:1 (12 injuries)

6 lectures about DCS techniques (textbook)



Pre- and Post course Test

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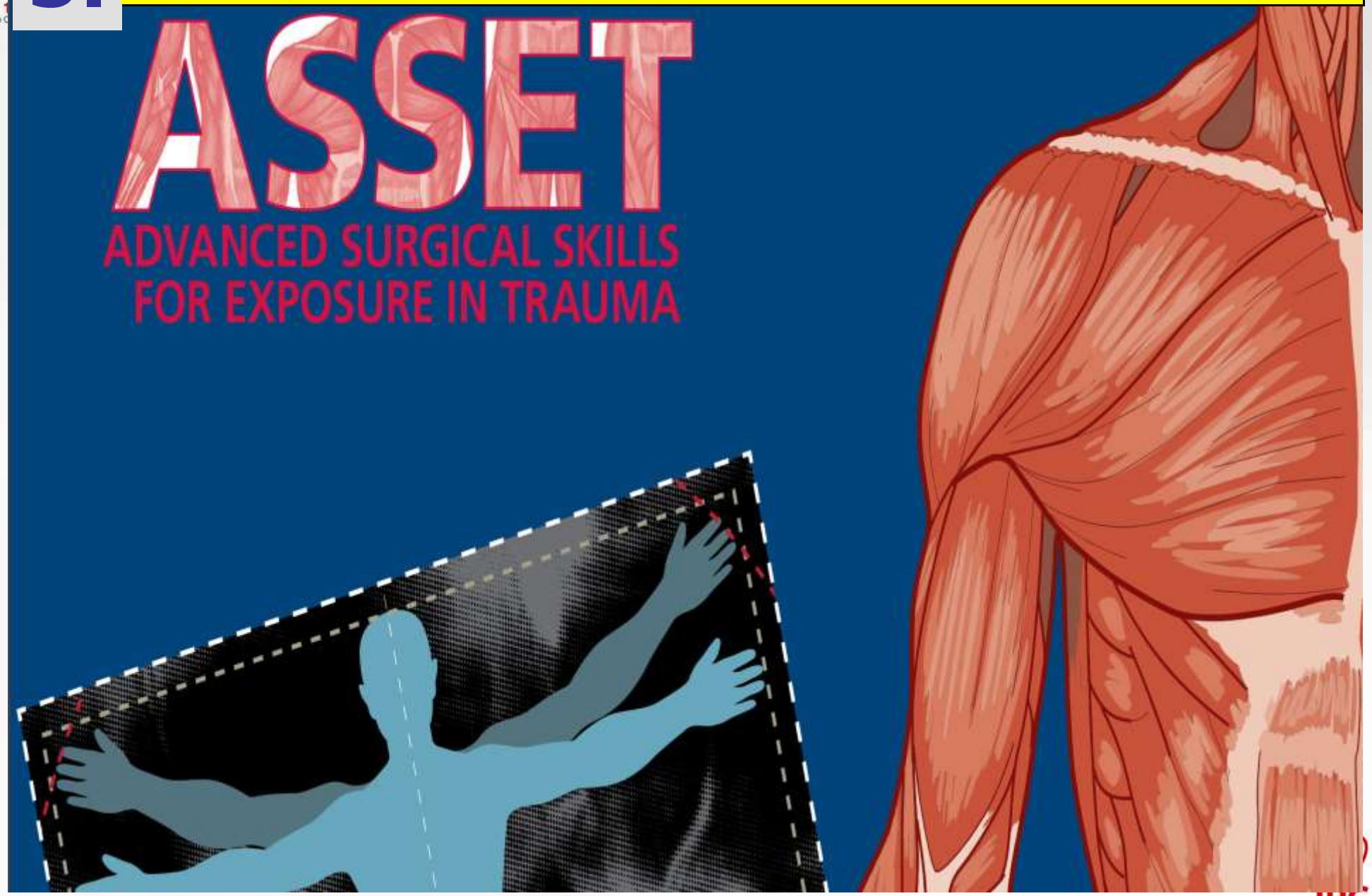
5. CADAVER LAB



ochiara@yahoo.com

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6.

UNIVERSITÀ DEGLI STUDI DI MILANO

UNIVERSITÀ DEGLI STUDI DELL'INSUBRIA

UPO UNIVERSITÀ DEL PIEMONTE ORIENTALE

MASTER coming on ACADEMIC YEAR 2019/2020. 18 months
Title in: **TRAUMA MANAGEMENT AND ACUTE CARE SURGERY**

Coordinator		
Chiara Osvaldo	**Professor**	**MED/18**

Board			
1	**Avanzi Gian Carlo**	**Rector, Professor**	**MED /09**
2	**Della Corte Francesco**	**Professor**	**MED /41**
3	**Carcano Giulio**	**Professor**	**MED /18**
4	**Pesenti Antonio**	**Professor**	**MED /41**
5	**Stocchetti Nino**	**Professor**	**MED /41**
6	**Cimbanassi Stefania**	**Attending surgeon**	**MED /18**

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TRAUMA BAY MANAGEMENT COURSE (TBMC)

PARTE 1

- Modello organizzativo
- Percorsi e procedure generali in TB

PARTE 2

- Segni vitali normali
- Emodinamica instabile
- Deterioramento neurologico (emo +/-)
- Gravida
- Pediatrico
- Penetranti

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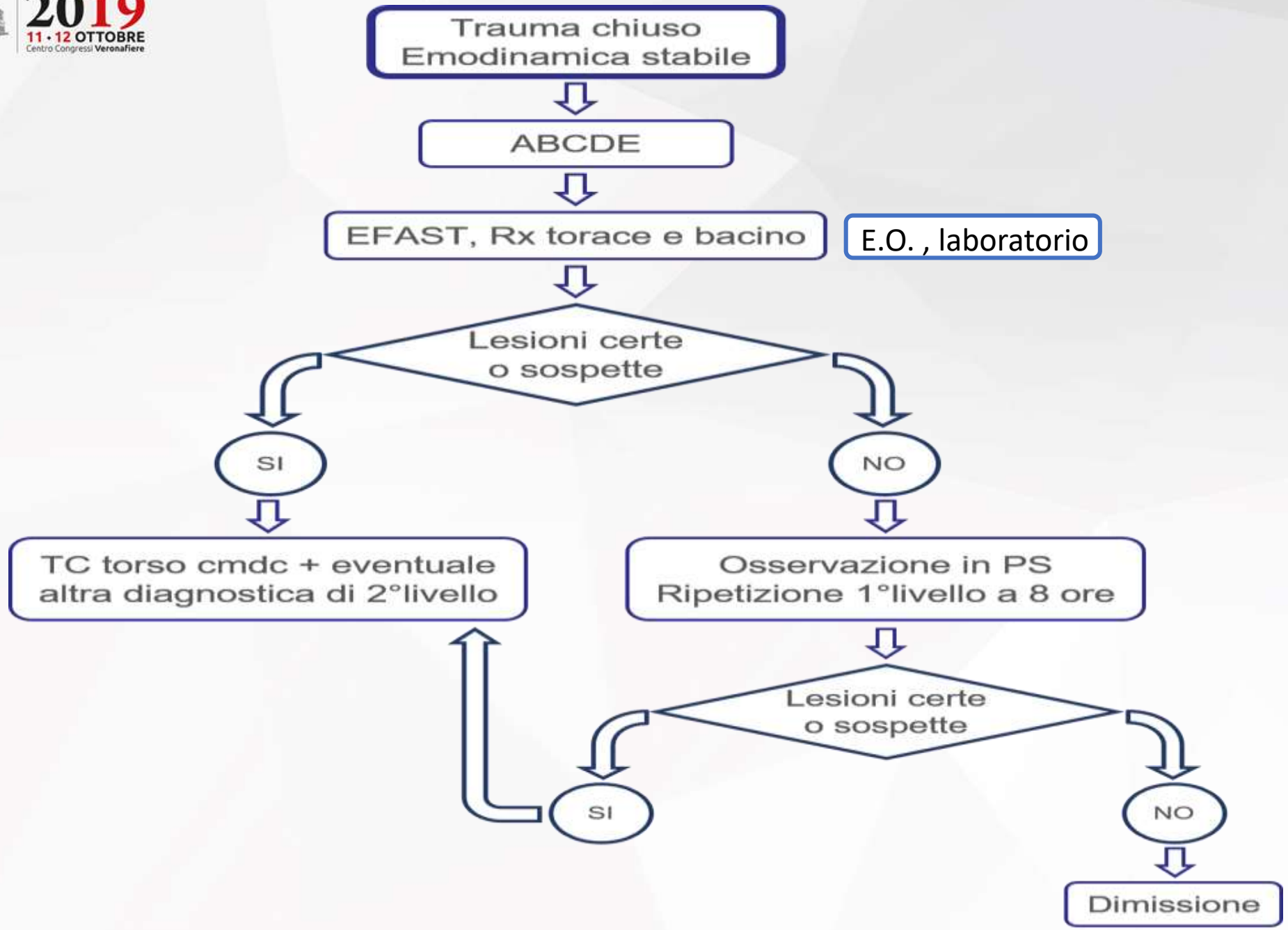
Trauma chiuso
Emodinamica stabile
ABCDE
EFAST, Rx torace e bacino
E.O. , laboratorio
Lesioni certe
o sospette
SI
NO
TC torso cmdc + eventuale
altra diagnostica di 2°livello
Osservazione in PS
Ripetizione 1°livello a 8 ore
Lesioni certe
o sospette
SI
NO
Dimissione

Emergency Radiology
https://doi.org/10.1007/s10140-019-01712-0

ORIGINAL ARTICLE

Torso computed tomography in blunt trauma patients with normal vital signs can be avoided using non-invasive tests and close clinical evaluation

Elisa Reitano[1] · Laura Briani[2] · Fabrizio Sammartano[1] · Stefania Cimbanassi[1] · Margherita Luperto[1] · Angelo Vanzulli[3] · Osvaldo Chiara[1]

Received: 30 April 2019 / Accepted: 31 July 2019

Sensitivity	0.99
Specificity	0.94
Positive predictive value	0.93
Negative predictive value	0.99
Accuracy	0.96
+LR	16.5
−LR	0.01

ER test confidence variables. *LR* likelihood ratio

Belabbas D, Auger M, Lederlin M, Bonenfant J, Gandon Y, Aubé C, Paisant A (2019) Whole-body CT after motor vehicle crash: no benefit after high-energy impact and with normal physical examination. Radiology. https://doi.org/10.1148/radiol.2019182806

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Trauma chiuso
Emodinamica stabile
+ deterioramento neurologico

ABCDE
EFAST (solo torace)

Problemi in AB

si

Trattamento
(IOT, drenaggio toracico)

no

TC cerebrale+cervicale
(ev massiccio) +
TC torso con mdc

si

Frattura cervicale con dubbia lesione AC-AV

AngioTC
cervicale-cerebrale
(RM differita)

no

Trattamento lesioni cerebrali e/o viscerali quando indicato

Emergency Radiology (2019) 26:365–372
https://doi.org/10.1007/s10140-019-01677-0

ORIGINAL ARTICLE

CrossMark

Augmenting Denver criteria yields increased BCVI detection, with screening showing markedly increased risk for subsequent ischemic stroke

Frank V. Bensch[1] · Elina A. Varjonen[1] · Tuomo T. Pyhältö[2] · Seppo K. Koskinen[3]

Received: 13 September 2018 / Accepted: 23 January 2019 / Published online: 12 February 2019

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PARTE 3

- Casi simulati

PARTE 4

- Damage control in TB

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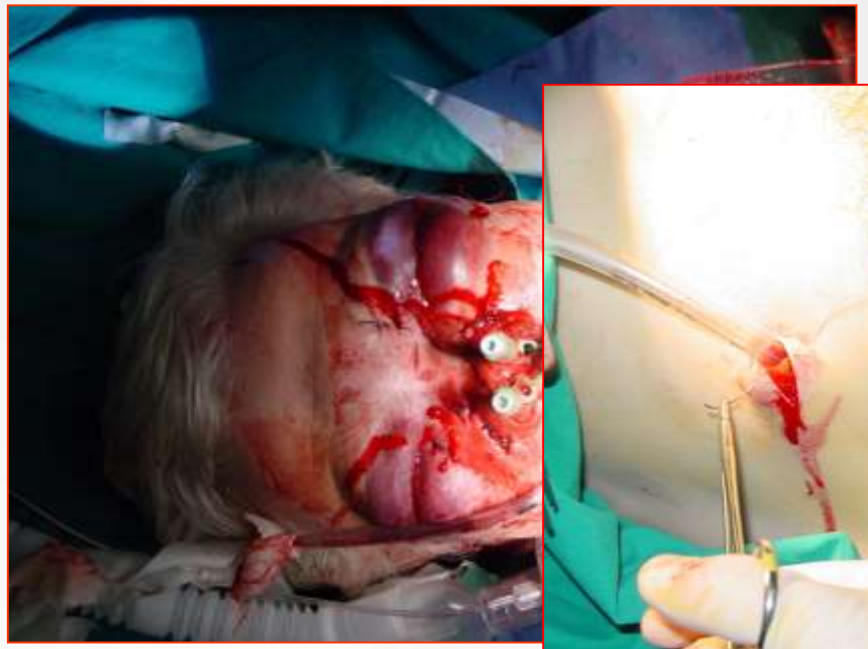
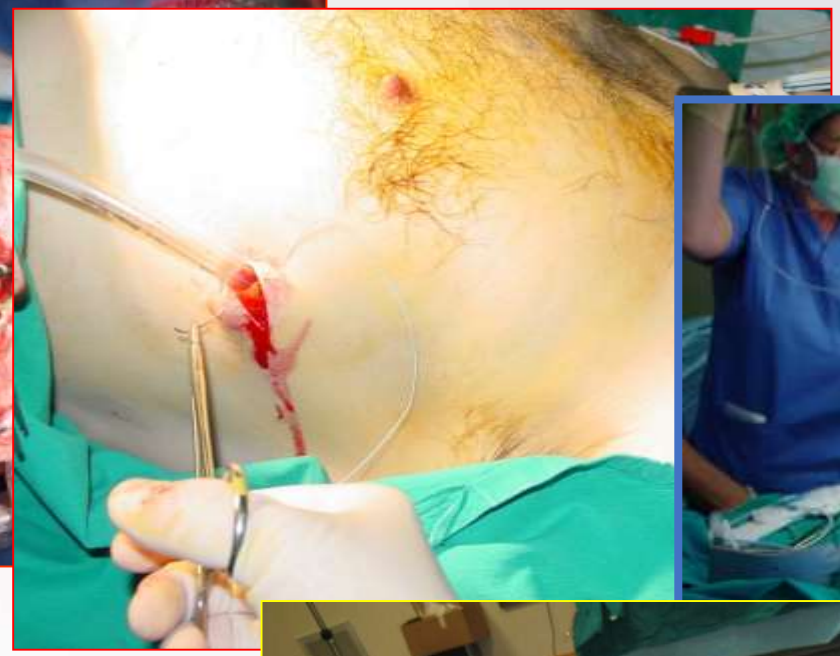
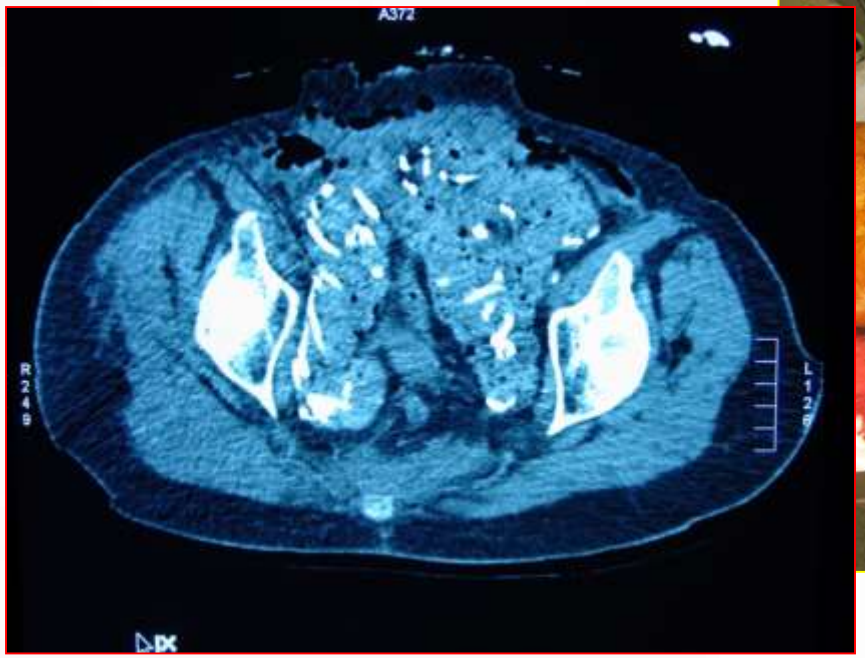
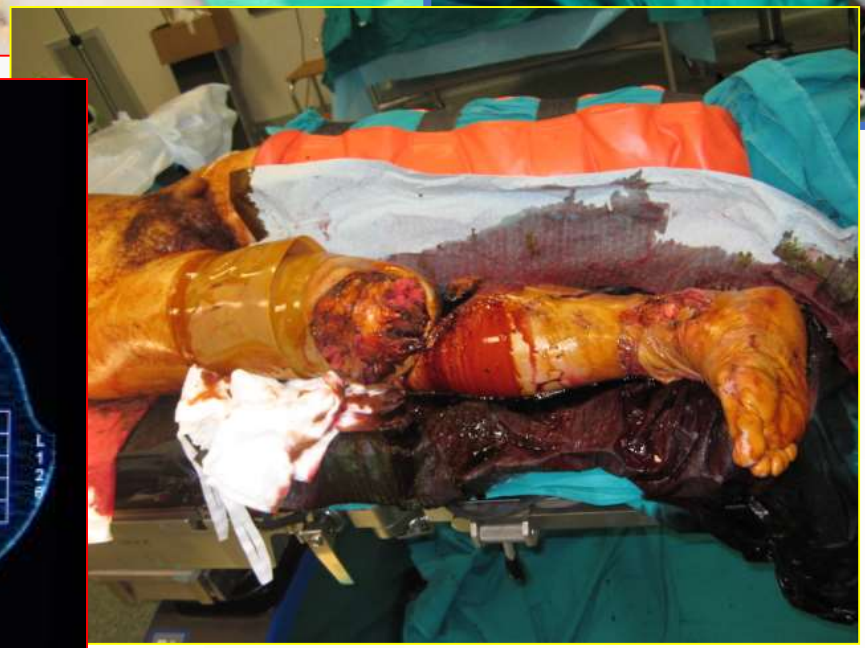
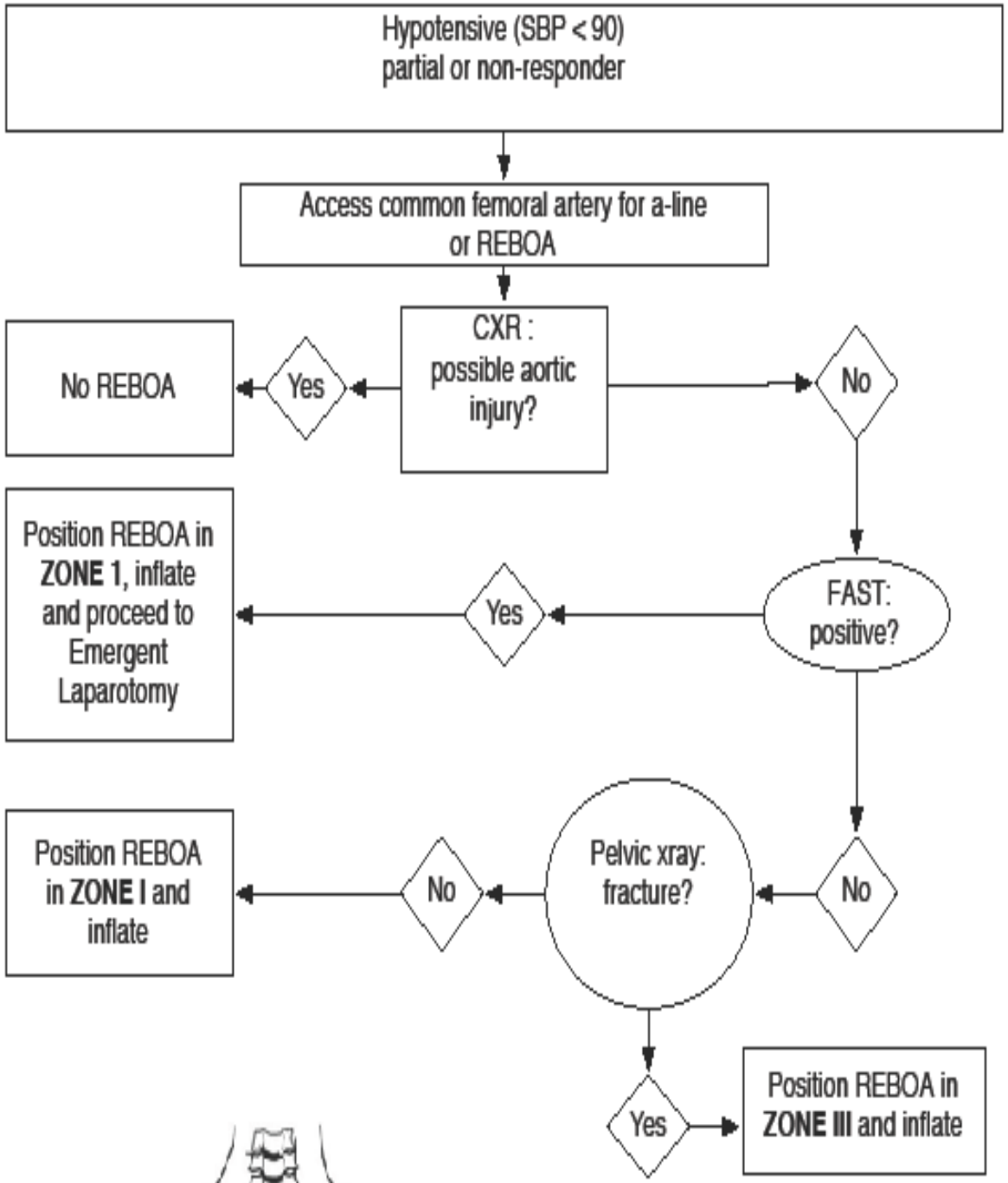
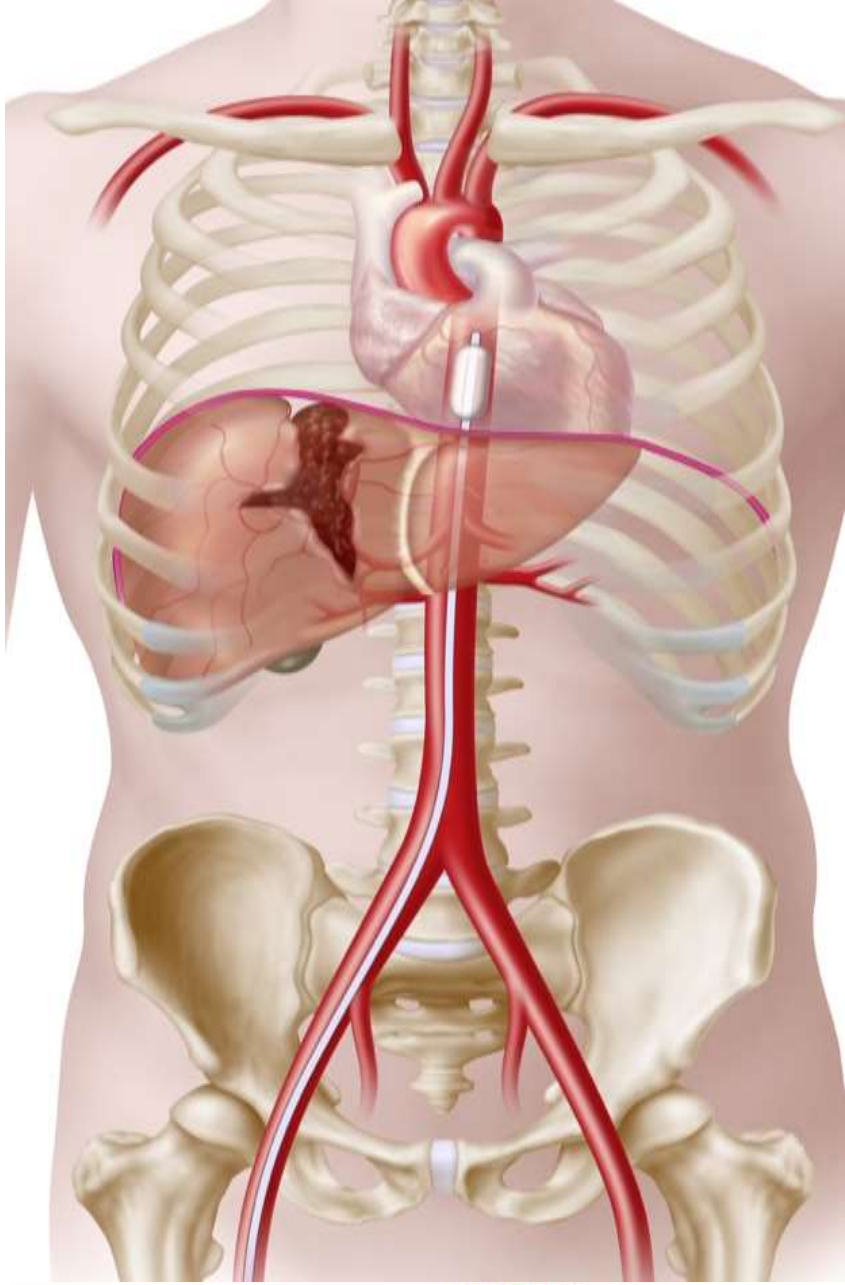





A372
R 2 4 9
L 1 2 8
DX




Hypotensive (SBP < 90)
partial or non-responder
Access common femoral artery for a-line
or REBOA
CXR :
possible aortic
injury?
Yes
No REBOA
No
FAST:
positive?
Yes
Position REBOA in
ZONE 1, inflate
and proceed to
Emergent
Laparotomy
No
Pelvic xray:
fracture?
No
Position REBOA
in ZONE I and
inflate
Yes
Position REBOA in
ZONE III and inflate



Conclusioni

- Nell'attuale sistema traumi in Italia in molti traumi maggiori vengono inizialmente gestiti in ospedali non CTS

- Pertanto e' necessaria una diffusione della conoscenza dei protocolli e delle modalita' di gestione del trauma maggiore

- Il percorso educazionale deve prevedere l'insegnamento delle procedure di stabilizzazione anche negli ospedali piu' periferici secondo un percorso assistenziale unitario e condiviso

GRAZIE……