

Damage Control Surgery-bäckenskada



Ambulans larmas: 17.49

Ung man liggande på tunnelbaneplattform

M: klämd mellan plattform och tunnelbana

I: bäckenfraktur

S: oreg andning, svaga pulsar, medvetslös

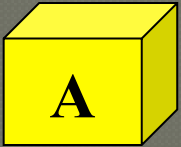
T: intuberad 18.02 vätska ?

Skadeplats: 30 min

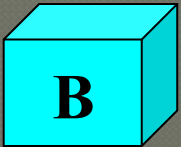
Transport tid : 4 min

Avlämn : 18.31

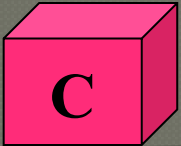
Primary Survey: 18.31



intuberad



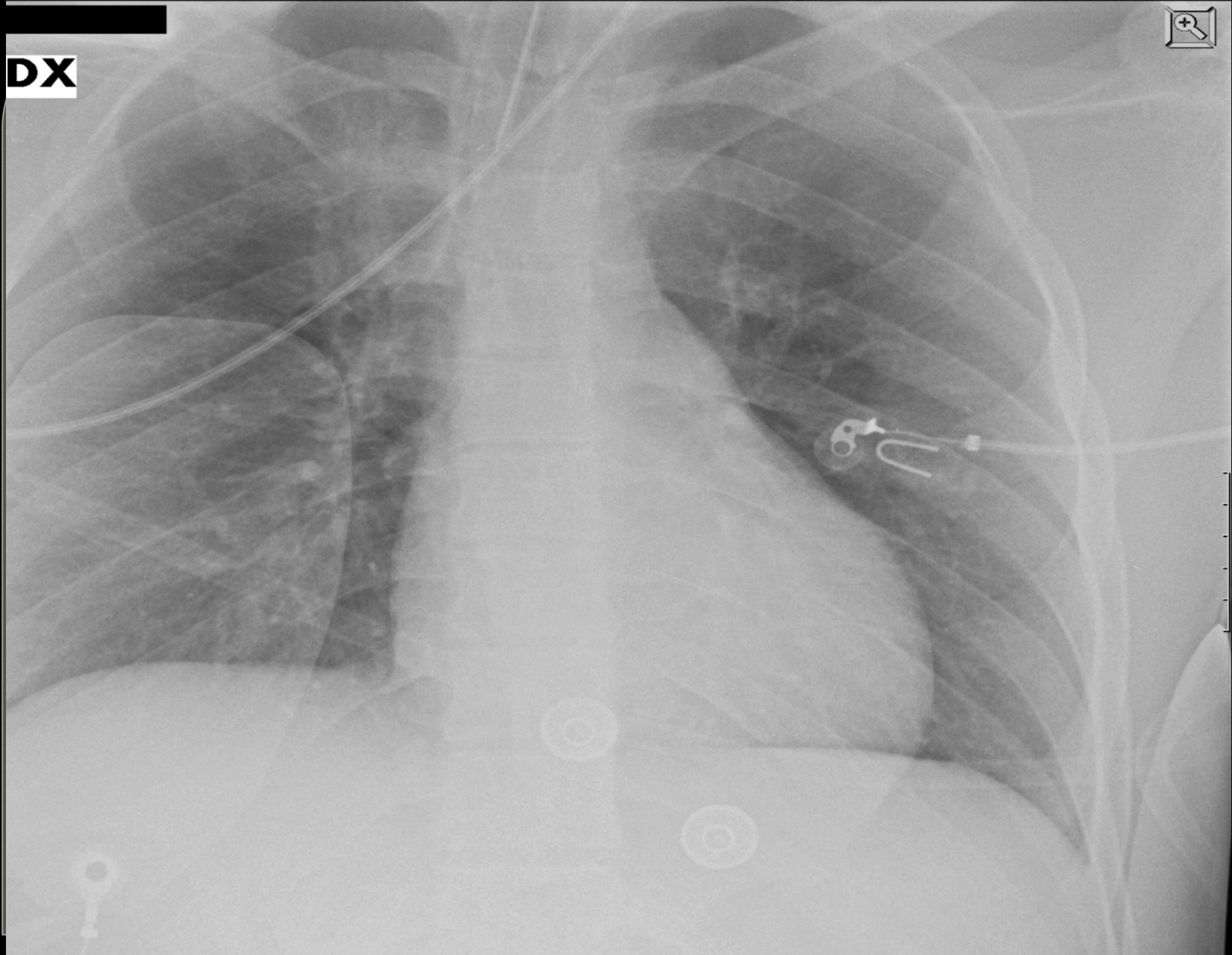
Sidlika andn ljud

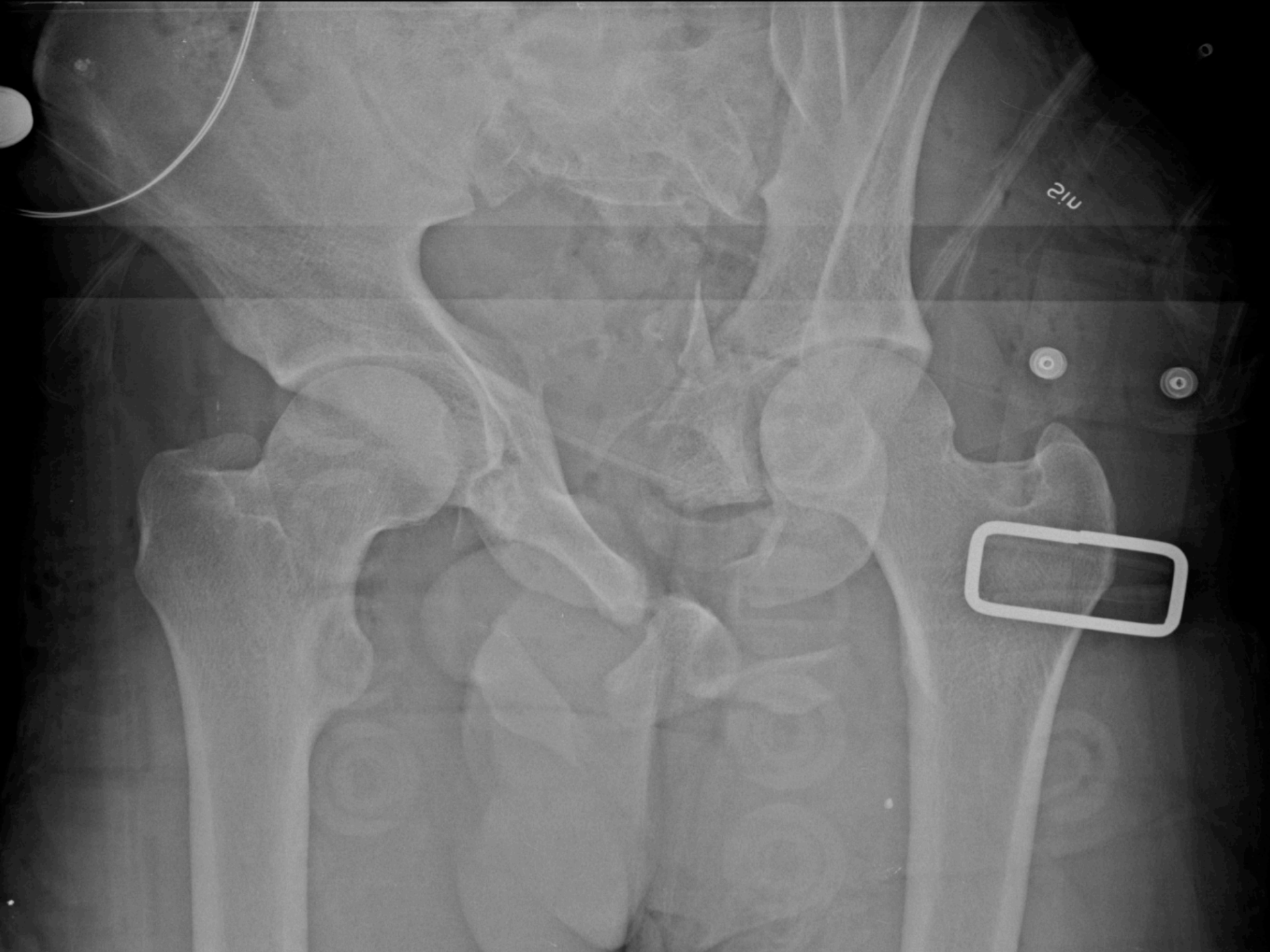


Svaga carotispulsar, bäckenfraktur.



DX







TBANA,
ID_20140901_183834

KAROLINSKA TRAUMA

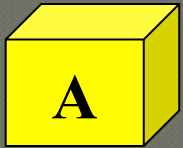
01/09/14
18:40:20

ZZ

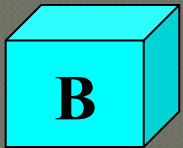


Abd/General
P4-1/CH4MHz
- DR50/M2/P2
- G70/E1/100%
- MI1.2 TIs0.5
- 14.0 cm
- 12 Hz
- ZSI 0
- Cine

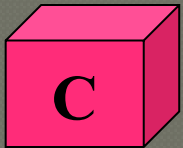
Primary Survey: 18.31



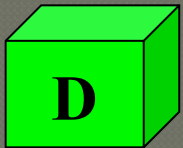
intuberad



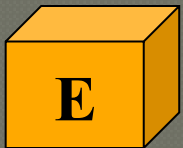
Sidlika andn ljud



Svaga carotispulsar, bäckenfraktur.



GCS 3



T 36°, sår vä höft, öppen radius fraktur

Damage Control Resuscitation

- Subklavia infarter bilat
- Massiv transfusions protokoll
- 18.38 första blod gas
 - pH 7.044
 - Lac 11.6
 - BE -14.5
 - Hb 107
- Lab 18.36 hours; Fibrinogen 1.8, PK 1.3

Damage Control Surgery

- Till op 18.45 för preperitoneal packning
 - Pulslös → nödtorakotomi
 - Kontakt angio/interventionist
- hybridsal



Damage Control Surgery

- Laparotomi-retroperitonealt hematom-packas
- Stabiliserad med aortakompression och MTP → hybridsal

Ankomst 18.31

Hybridsal 19.30

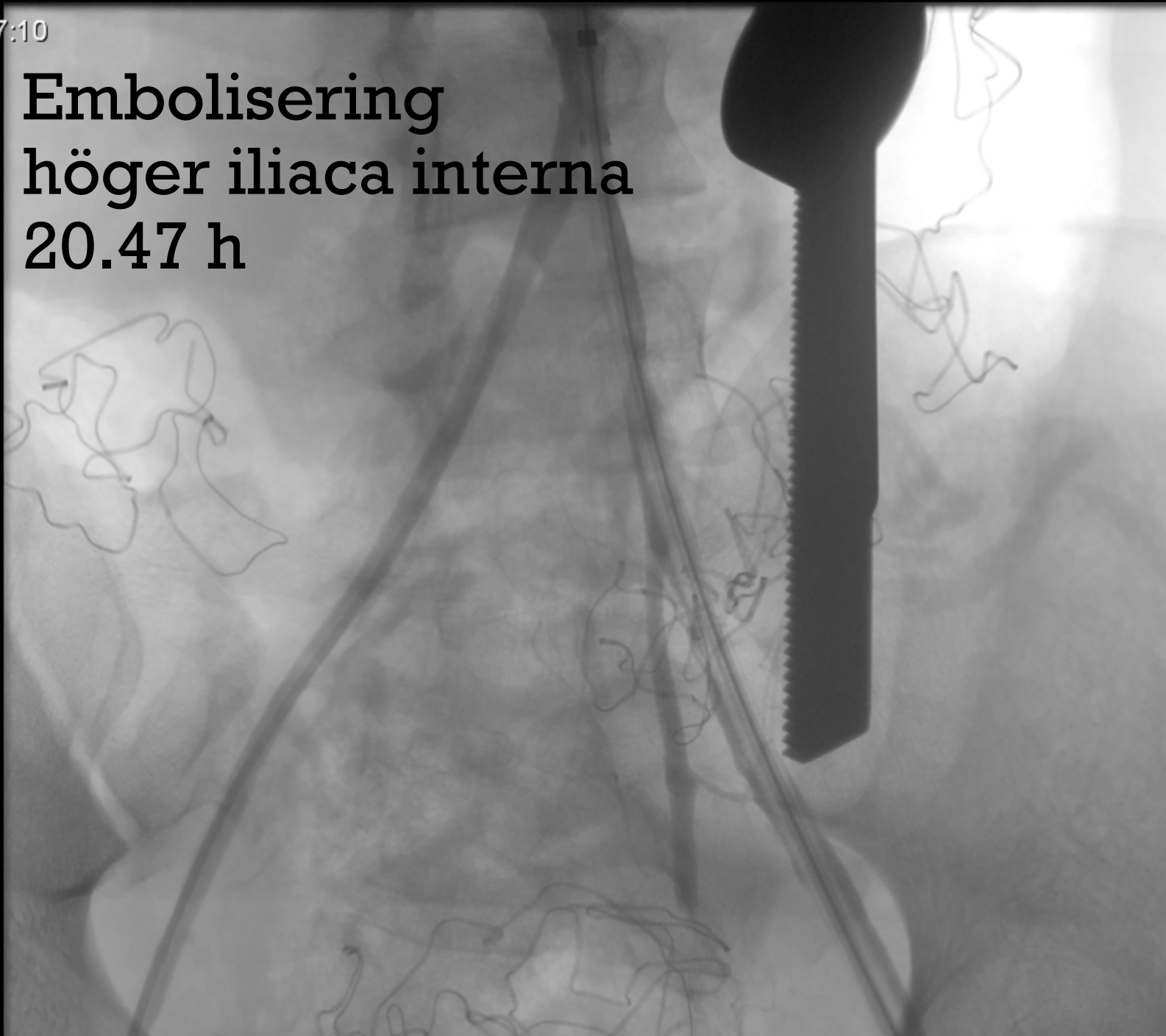


Ballong ocklusion aorta 20.33

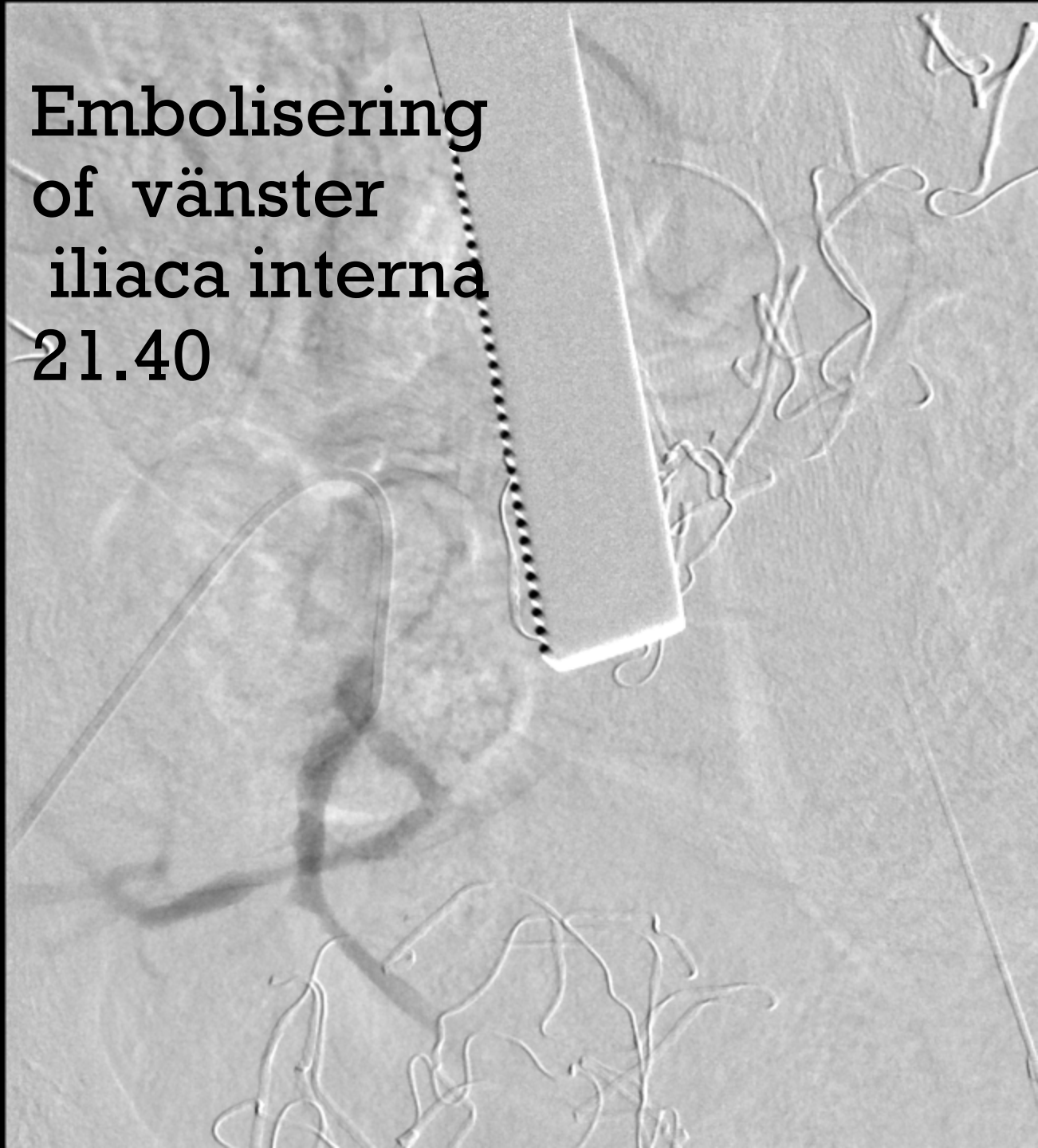


2014-09-01, 20:47:10

Embolisering
höger iliaca interna
20.47 h



Embolisering of vänster iliaca interna 21.40



Hybridsal

- Efter embolisering
- Thorakotomi slutet
- Sigmoidostomi (kontaminationskontroll)



Ankomst 18.31

CT 23.25





Skador

- ◉ Dislocerad bäckenfraktur, multipla fragment
- ◉ Skallfraktur, subduralhematom
- ◉ (platt vena cava inferior)
- ◉ Vä höft och lår mycket svullet

Ex: 32449

Se:7

Volume Rendering No cut

DFOV 40.0 cm

Smooth 3D+

Rotation: 12.0 deg.

R

2
0
2

No VOI

0.6mm 0.984:1/0.62sp

Karolinska Solna Trauma

M 113 992014630913

DoB: Jan 01 1901

Ex: Sep 02 2014

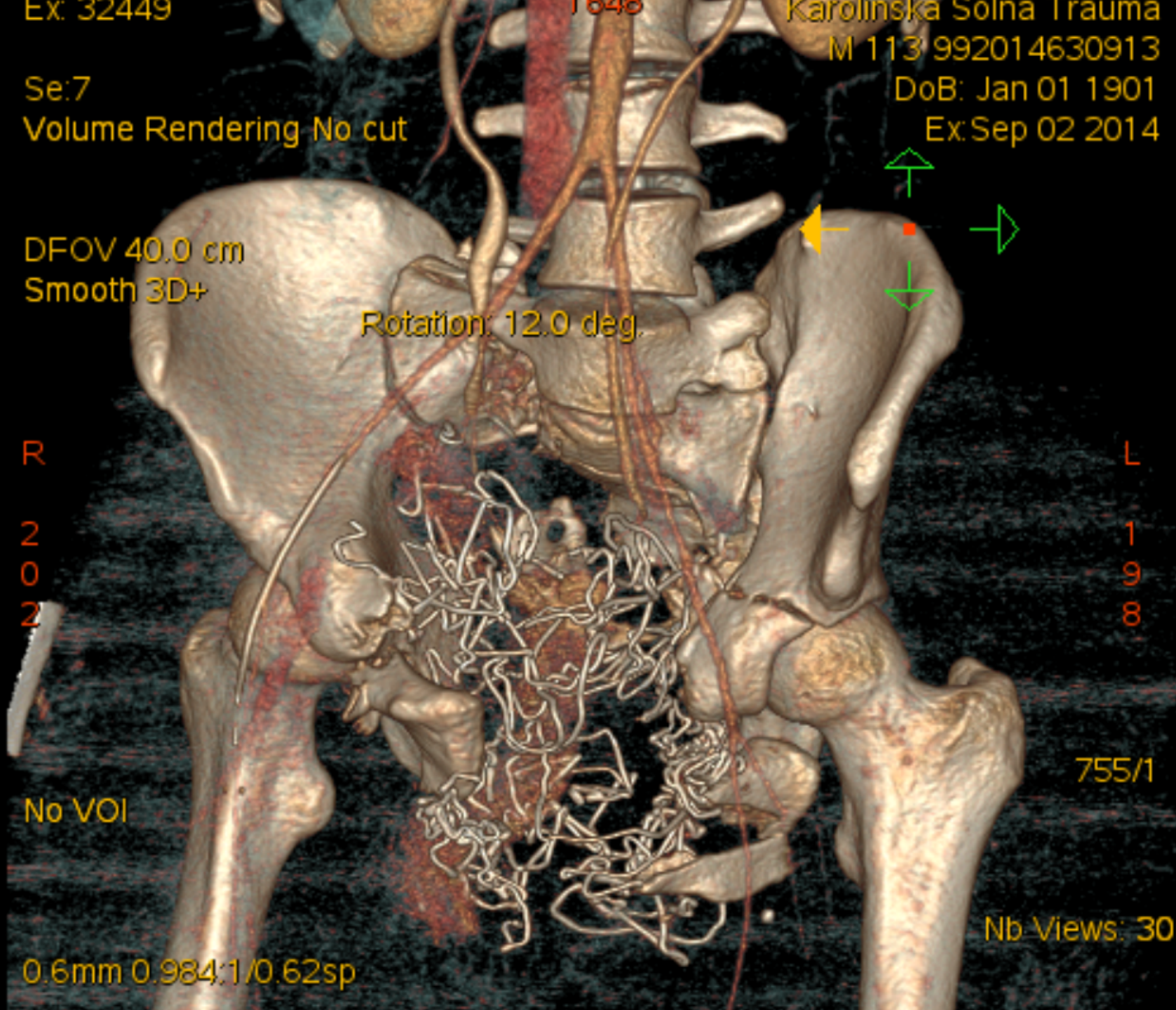


L

1
9
8

755/1

Nb Views: 30



2014-09-02, 00:10:52

Series: 750

Bild-id: 2

Bild 2 av 5

Volume 1
Ex: 32449

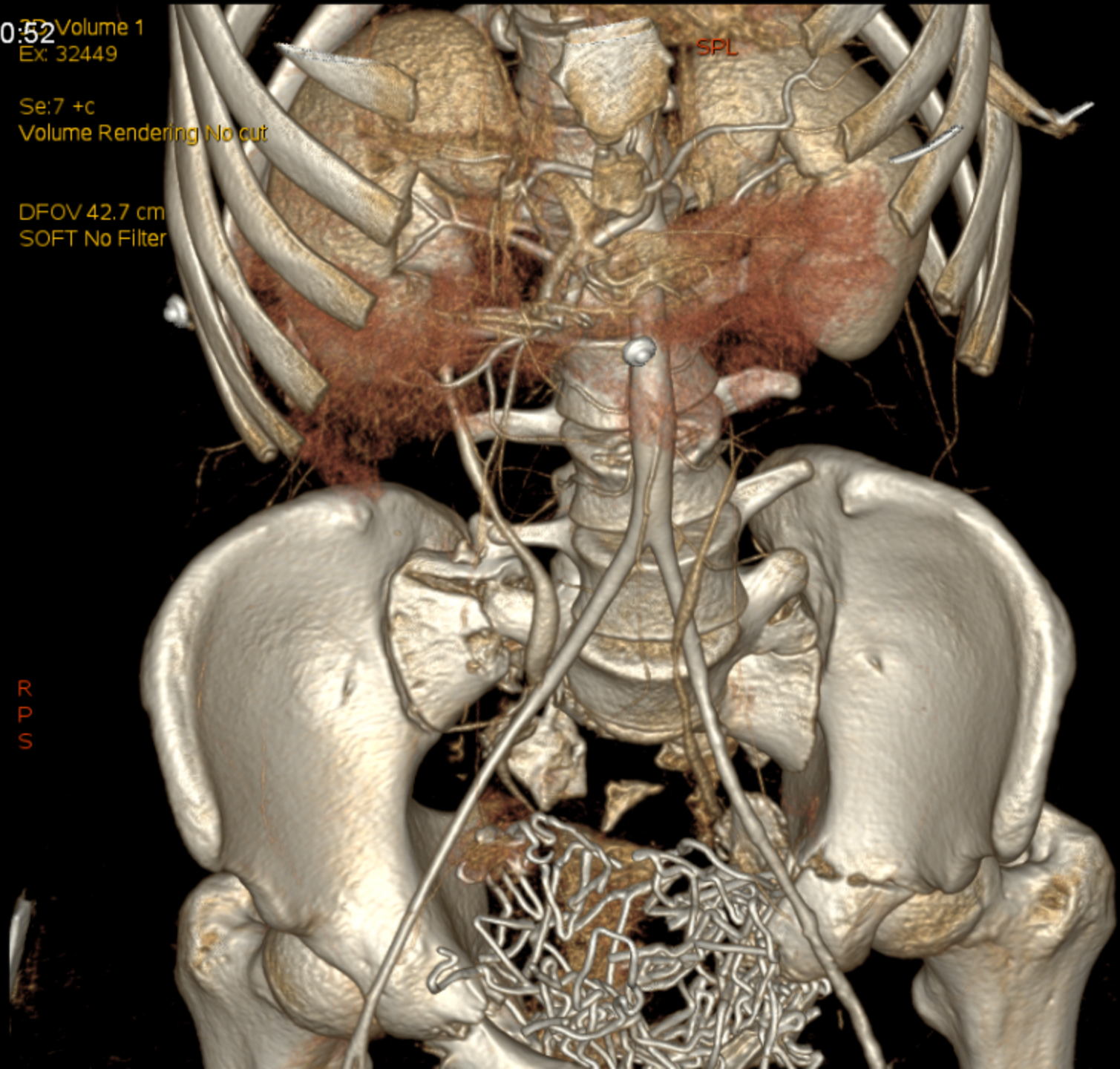
Se: 7 +c
Volume Rendering No cut

DFOV 42.7 cm
SOFT No Filter

R
P
S

SPL

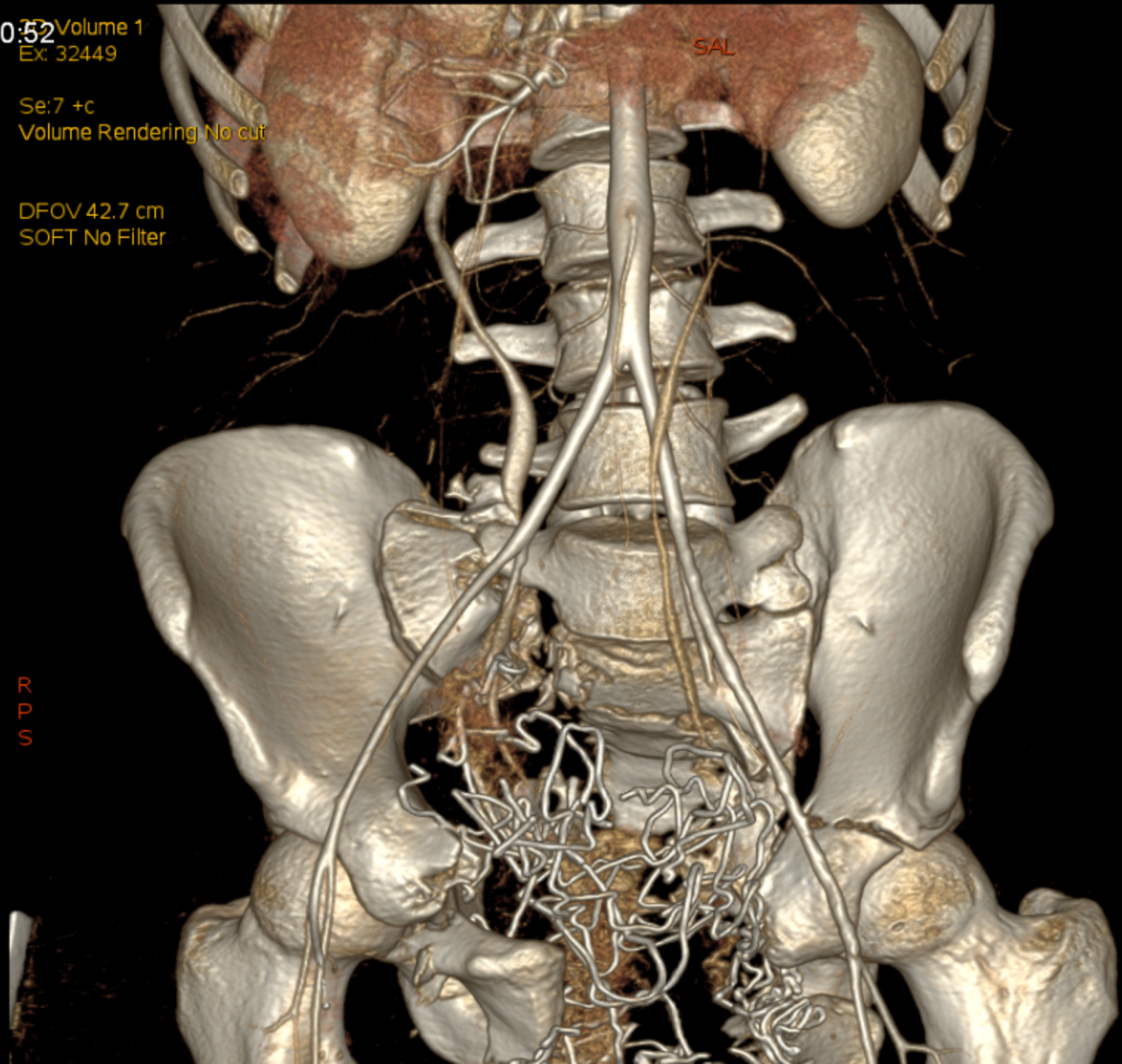
Ka
M



2014-09-02, 00:10:52
Series: 751
Bild-id: 1

Volume 1
Ex: 32449
Se: 7 +c
Volume Rendering No cut

DFOV 42.7 cm
SOFT No Filter



Ka
M

Arrival 18.31 hours

K1 01.00-04.00

- Kompartiment vä ben, inga pulsar
- Fasciotomi
- Pågående transfusion

Under 4 timmar

- Transfusionsbehov ökar
- Ompackad preperitoneallt (III)

Arterial (and venous) Blood Gases

	18.3 8	19.1 4	19.2 6	19.4 5	20.1 9	20.3 6	21.2 0	22.0 3	22.3 7	23.0 3	00.3 0	01.5 8	03.2 2	04.2 1	04.5 5	05.4 7
pH	7.04	7.16	7.16	7.28	7.21	7.27	7.33	7.37	7.38	7.42	7.43	7.35	7.36	7.32	7.33	7.38
BE	-14.5	-9.8	-9.7	-7.6	-3.4	-2.1	1.0	2.7	1.6	3.4	2.4	-1.5	0.4	-0.9	0.3	1.4
Lactate	11.6	8.9	8.3	8.1	5.8	7.6	5.8	5.1	8.0	5.6	8.6	7.0	8.1	8.4	8.5	9.2
Hb	107	90	85	89	84	82	96	80	95	97	78	112	102	96	93	85

Timme 1

Pulslöshet



Bäckenpackningx 2
Thoracotomi-aorta kompression
Laparotomi

Hybrid
sal



Timme

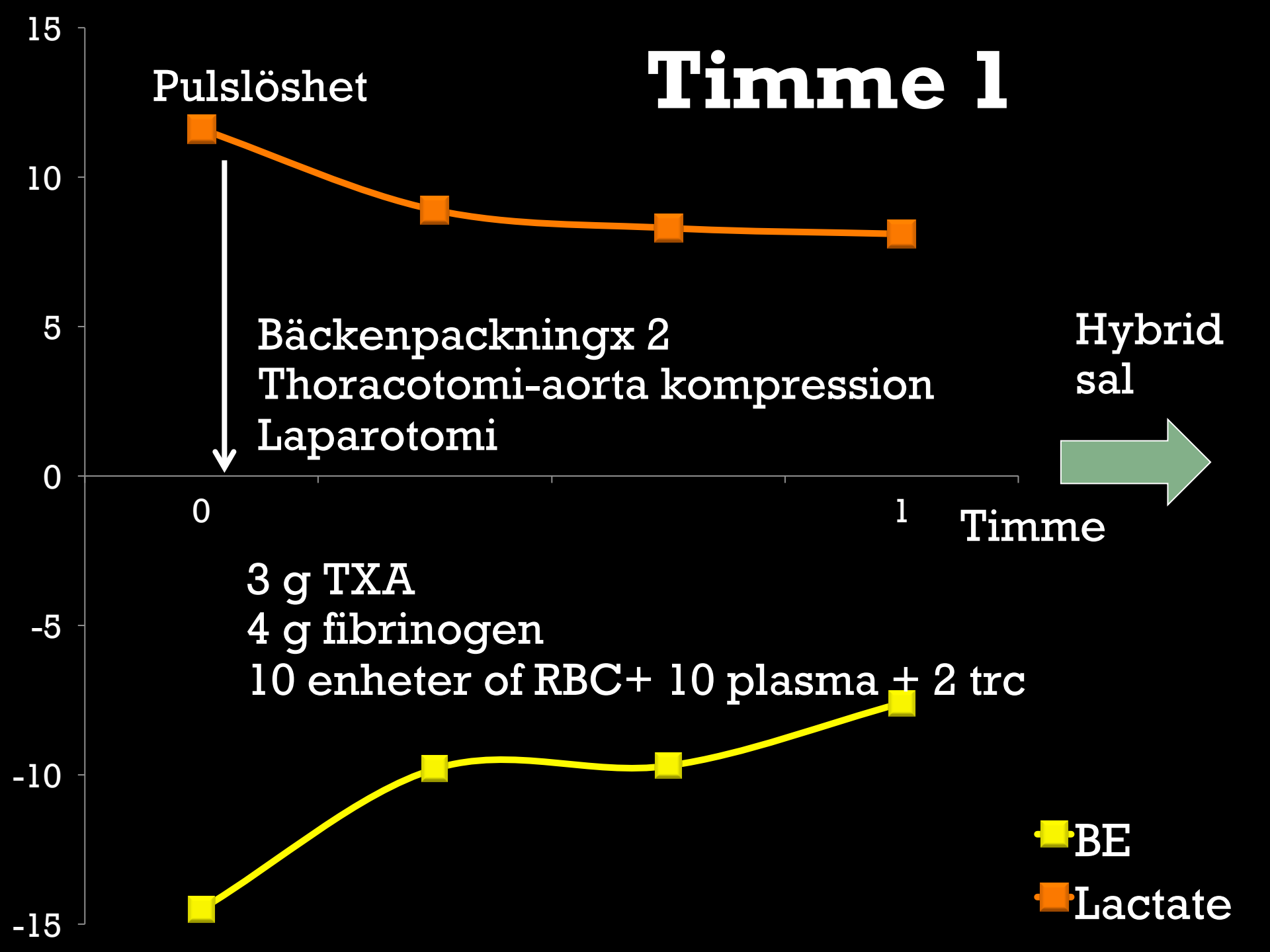
3 g TXA

4 g fibrinogen

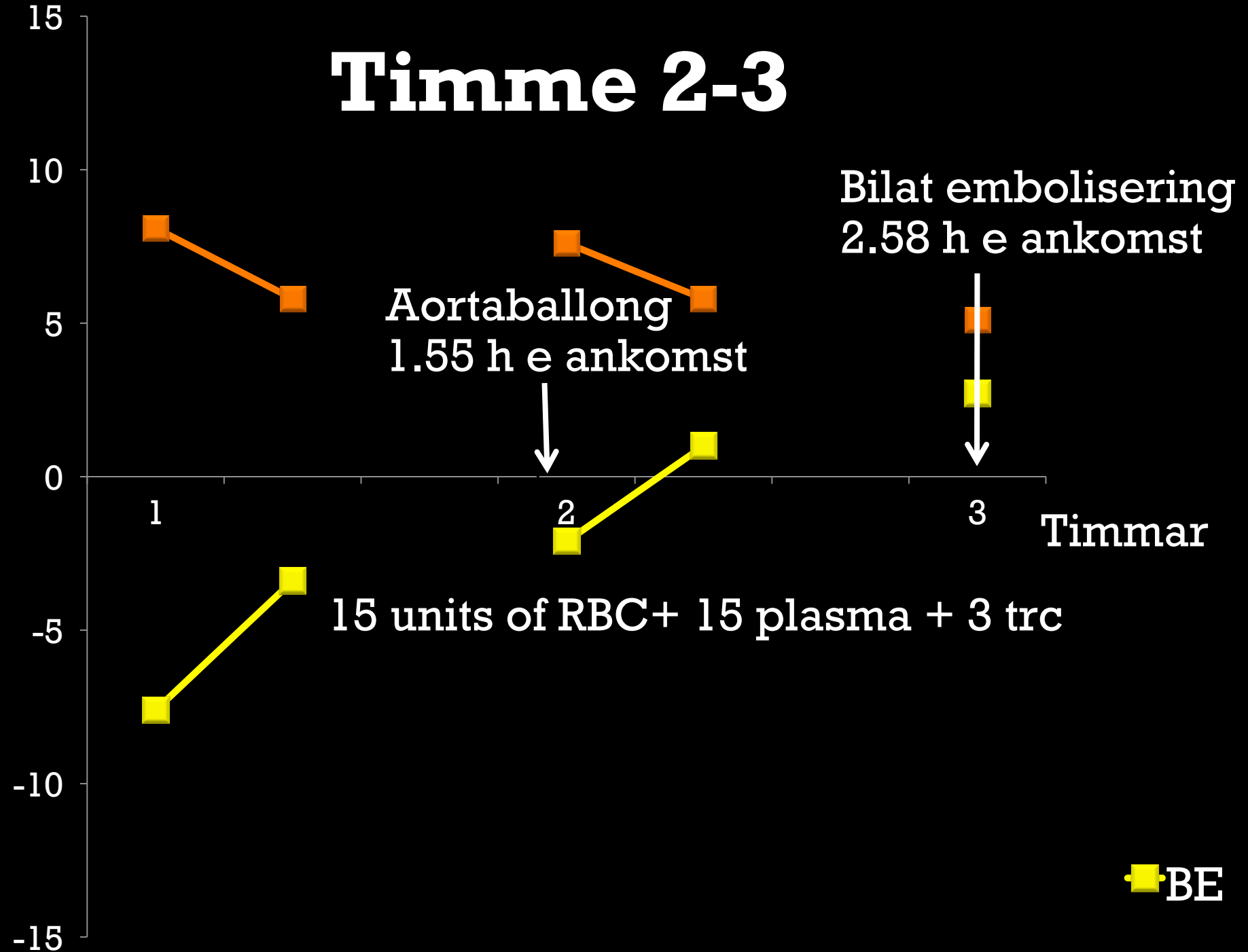
10 enheter of RBC+ 10 plasma + 2 trc

BE

Lactate



Timme 2-3



Timme 4-6

Total of 35 RBC
+ 35 plasma

CT

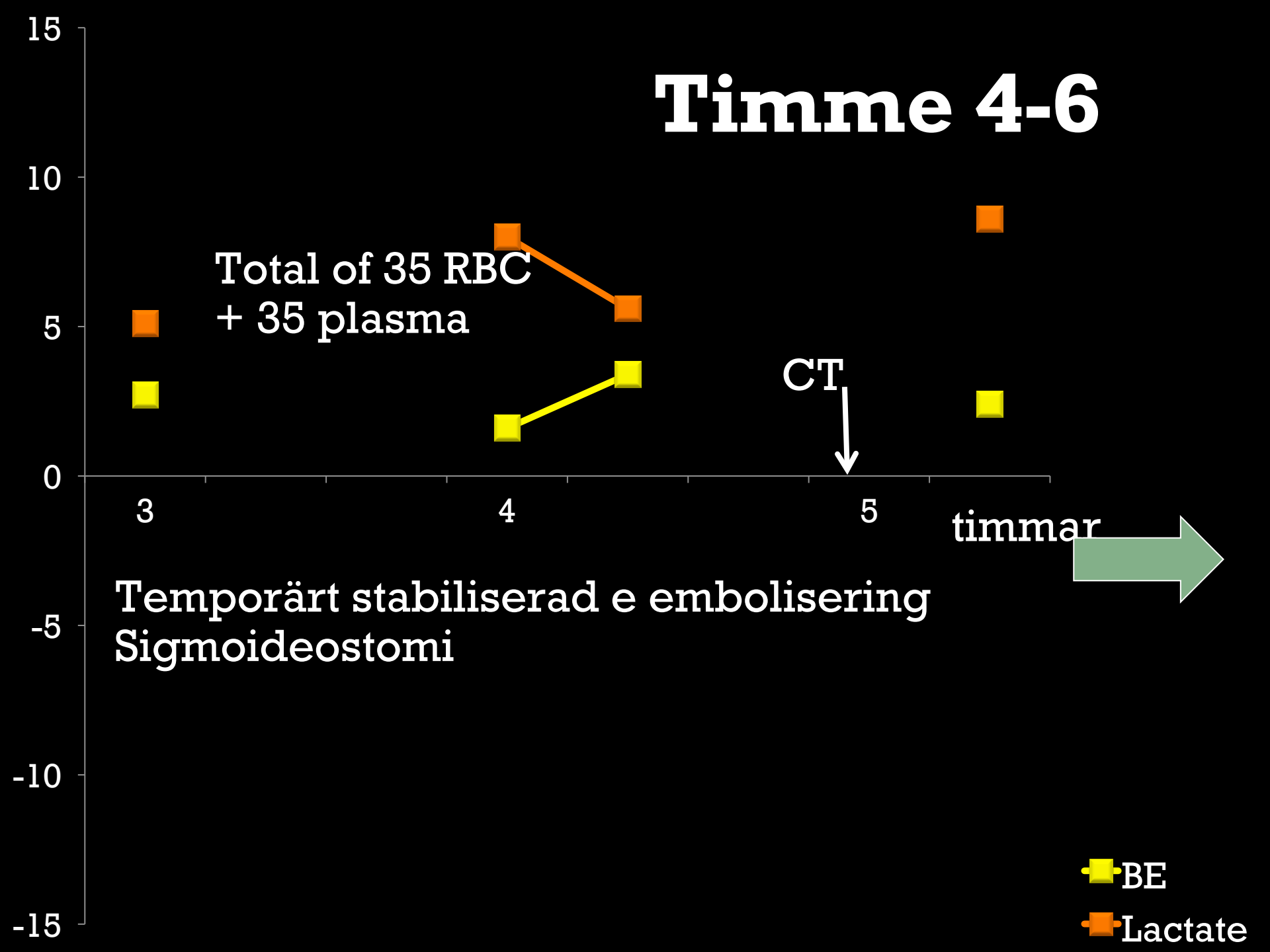


timmar

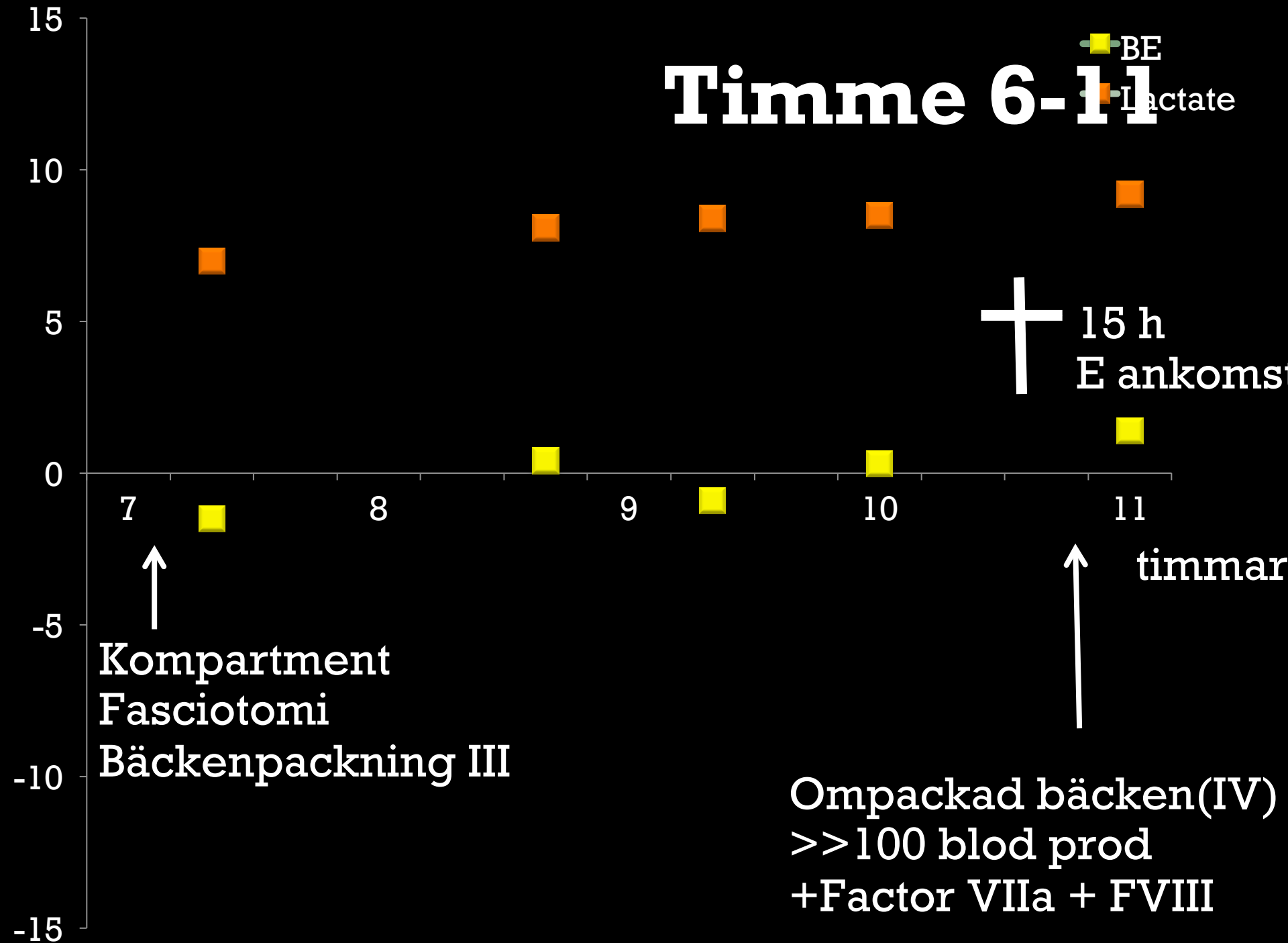


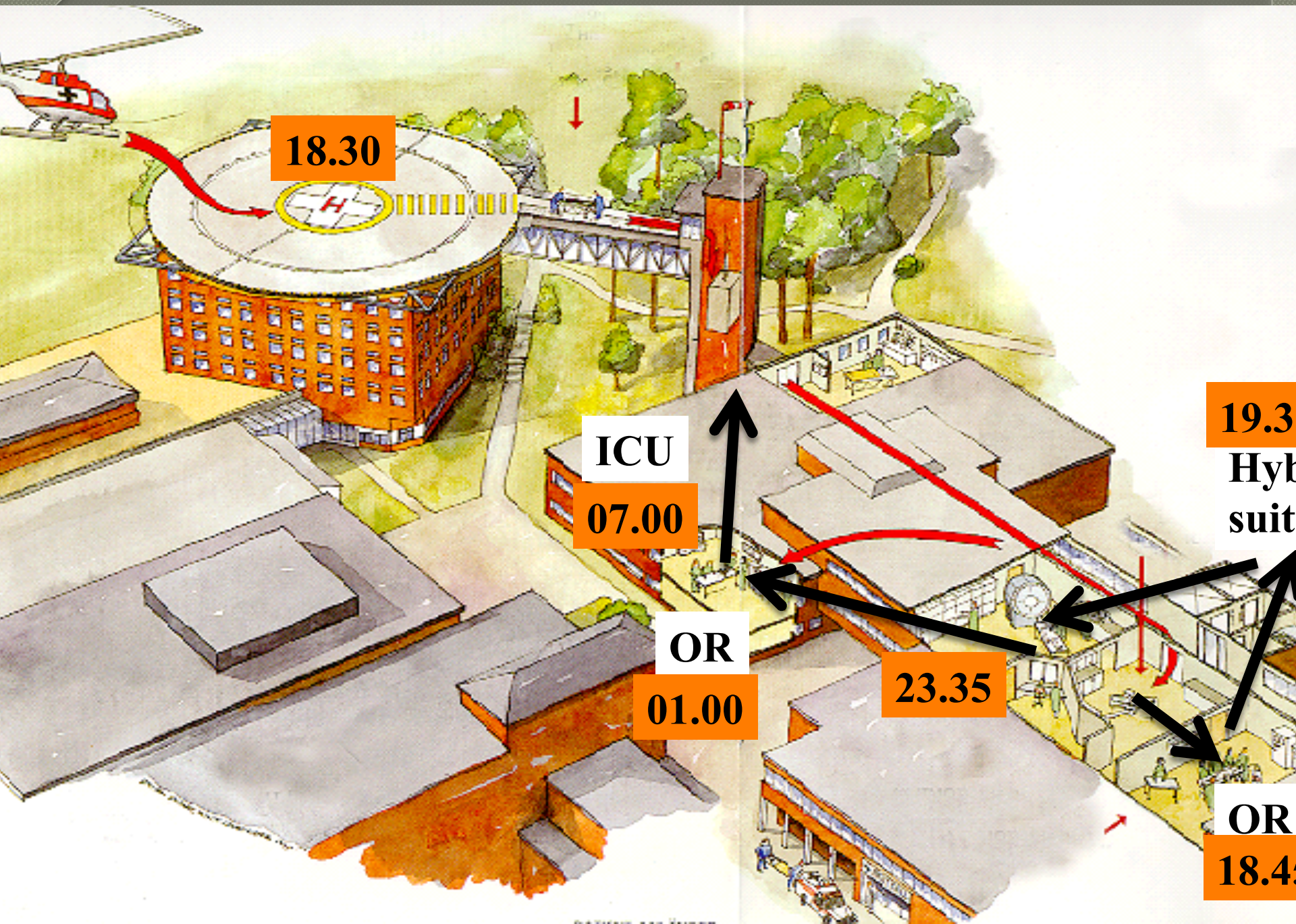
Temporärt stabiliserad e embolisering
Sigmoidostomi

BE
Lactate



Timme 6-11





Var detta ett förväntat utfall?

- Onödiga interventioner ?
- Fel interventioner ?
 - External fixation of the pelvis ?
- Massiv transfusion → död i kirurgisk blödning+ koagulopati