

Thoraco-abdominal normothermic regional perfusion

One technique, different protocols

11 March 2020

BTS - SIZ Joint Meeting

Dr. D. Ledoux (CHU Liège)

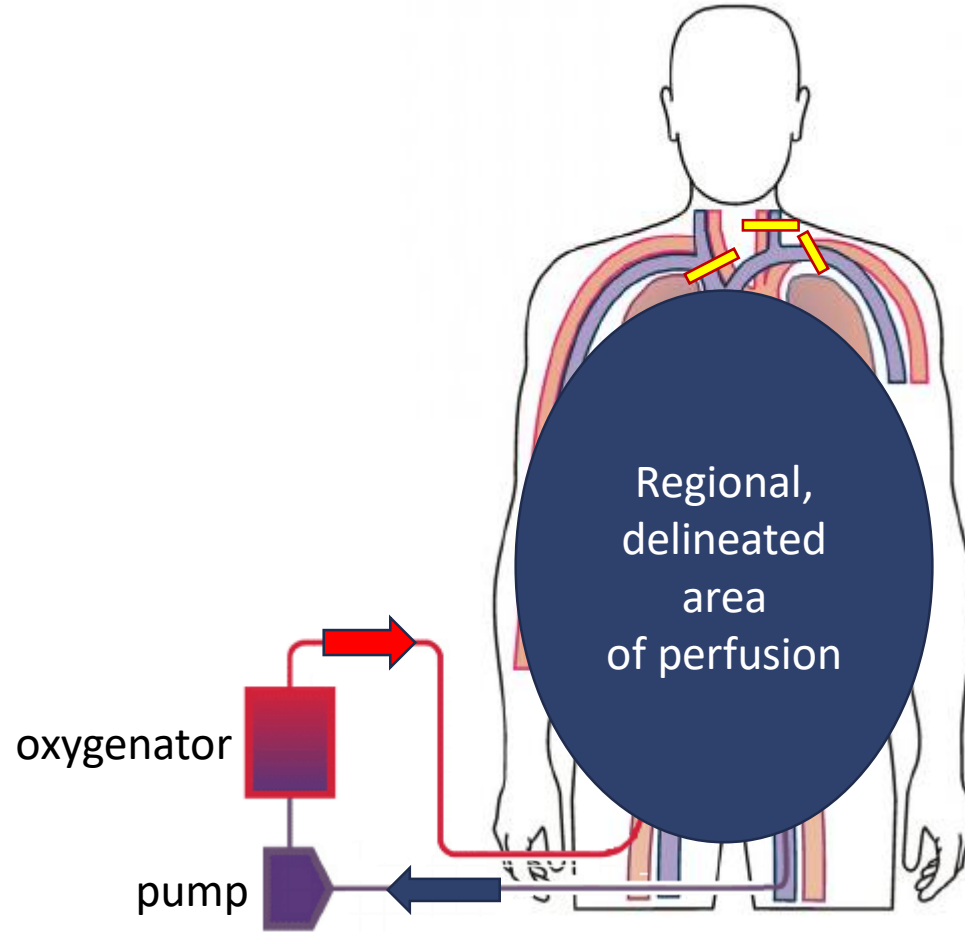
Dr. K. Vandendriessche (UZ Leuven)

I. WHAT IS TA-NRP?

Thoraco-Abdominal Normothermic Regional Perfusion

- Organ preservation / resuscitation technique
- Applied in a DCD setting (UZL and CHU: cDCD)
- Selective perfusion of potentially transplantable organs in a delineated area
- After determination of death, after obligatory warm ischemia

I. WHAT IS TA-NRP?

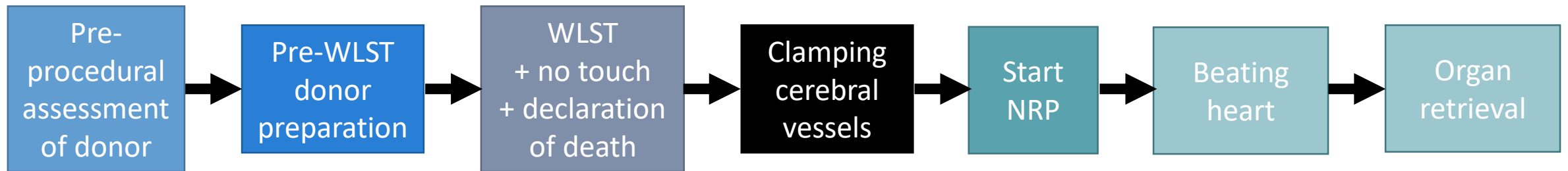


I. WHAT IS TA-NRP?

Advantages:

- Enables organ assessment after warm ischemia
- Potential to mitigate deleterious effects of warm ischemia
- Enables heart donation in DCD donors

2. TA-NRP procedure: steps



CT angio cerebral
vessels



Pre-procedural
assessment
of donor

Pre-WLST
donor
preparation

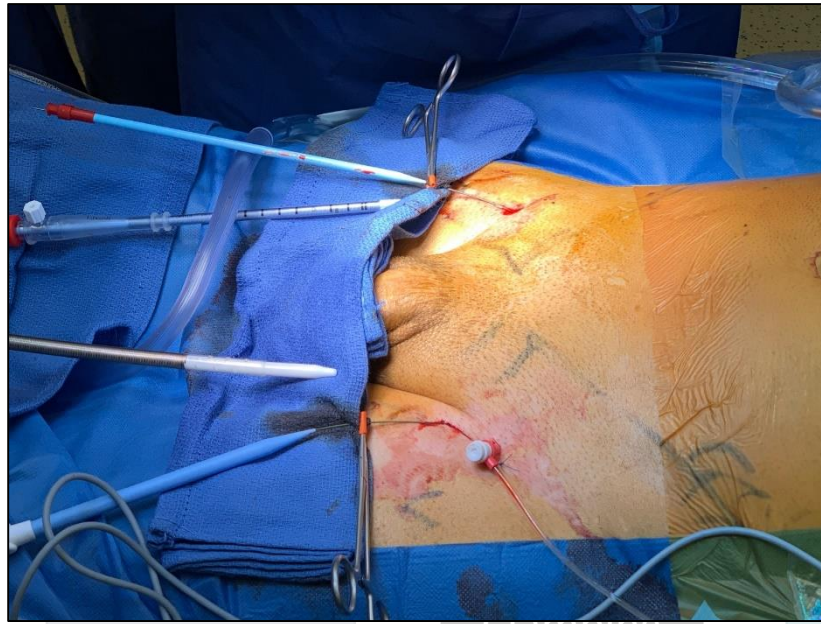
+ no touch
+ declaration
of death

Clamping
cerebral
vessels

Start
NRP

Beating
heart

Organ
retrieval



Pre-procedural assessment of donor

Pre-WLST donor preparation

+ no touch
+ declaration of death

Clamping cerebral vessels

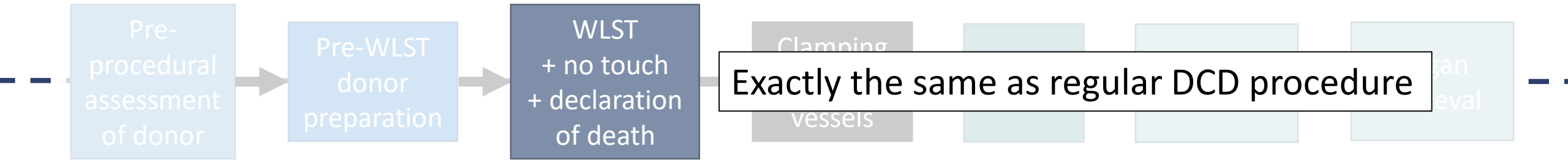
Start NRP

Beating heart

Organ retrieval

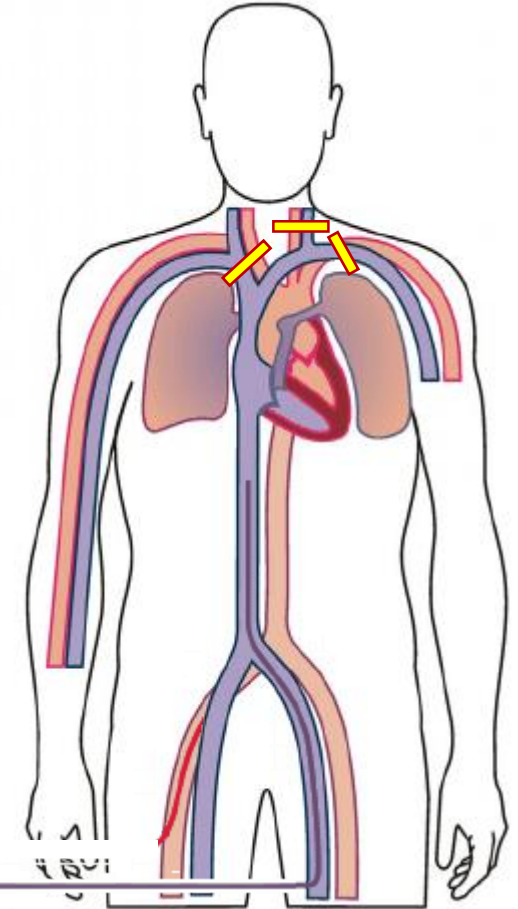
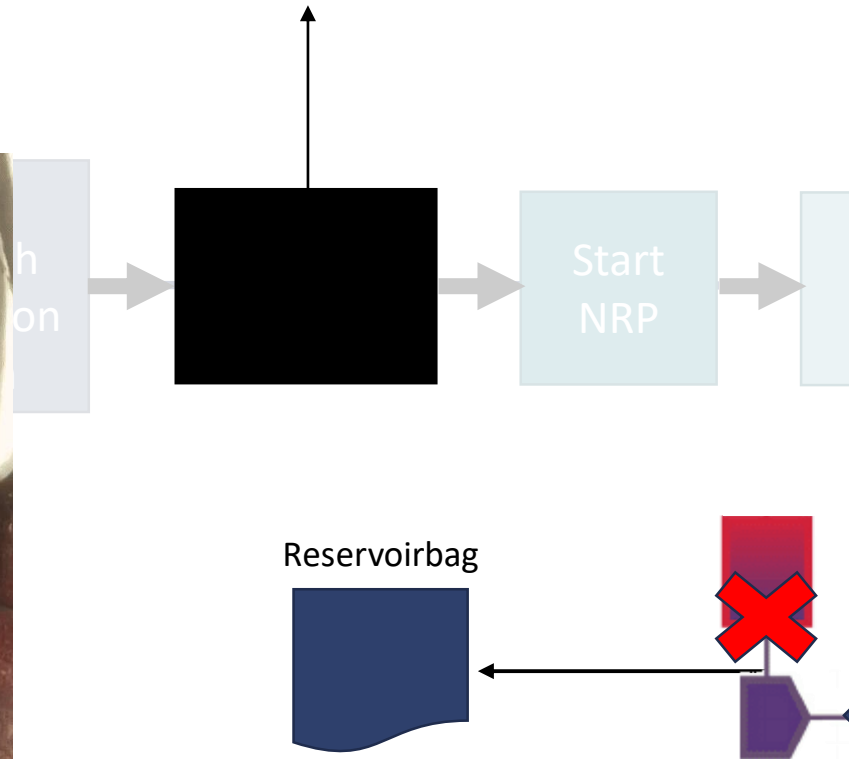
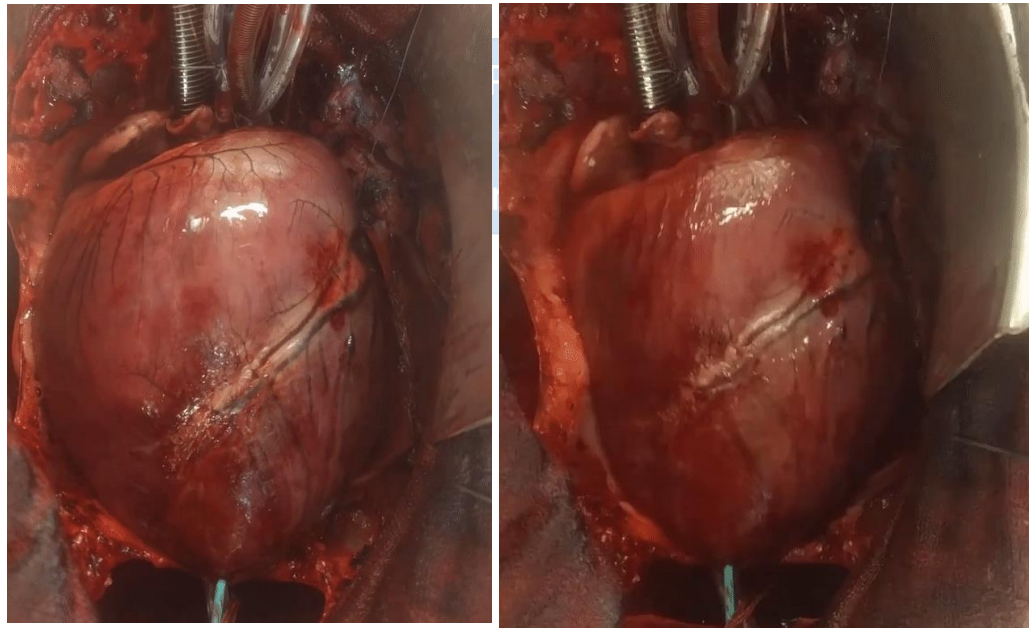
Guidewires groin

Cannulas groin

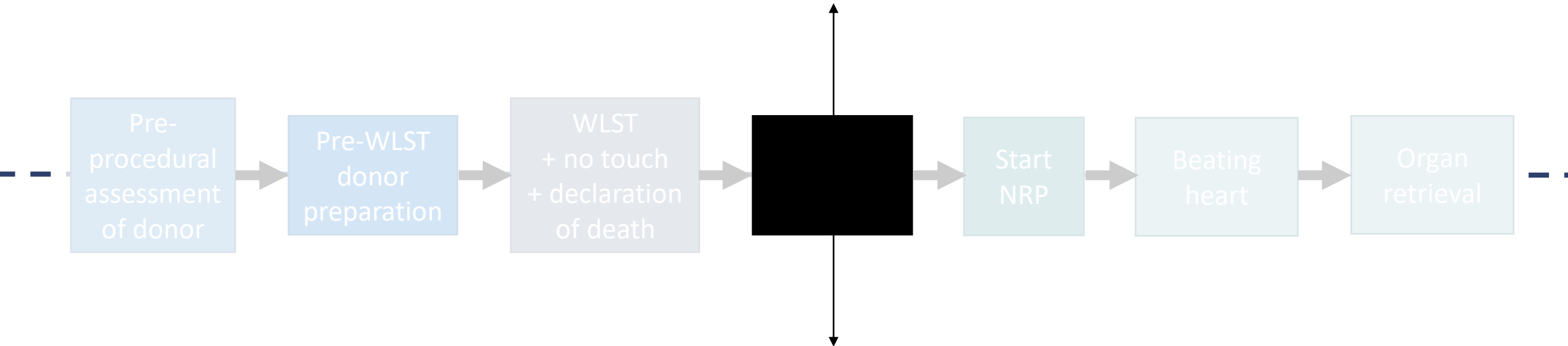


1. Insertion venous cannula, start venous drainage
2. Insertion arterial cannula, NRP not started yet

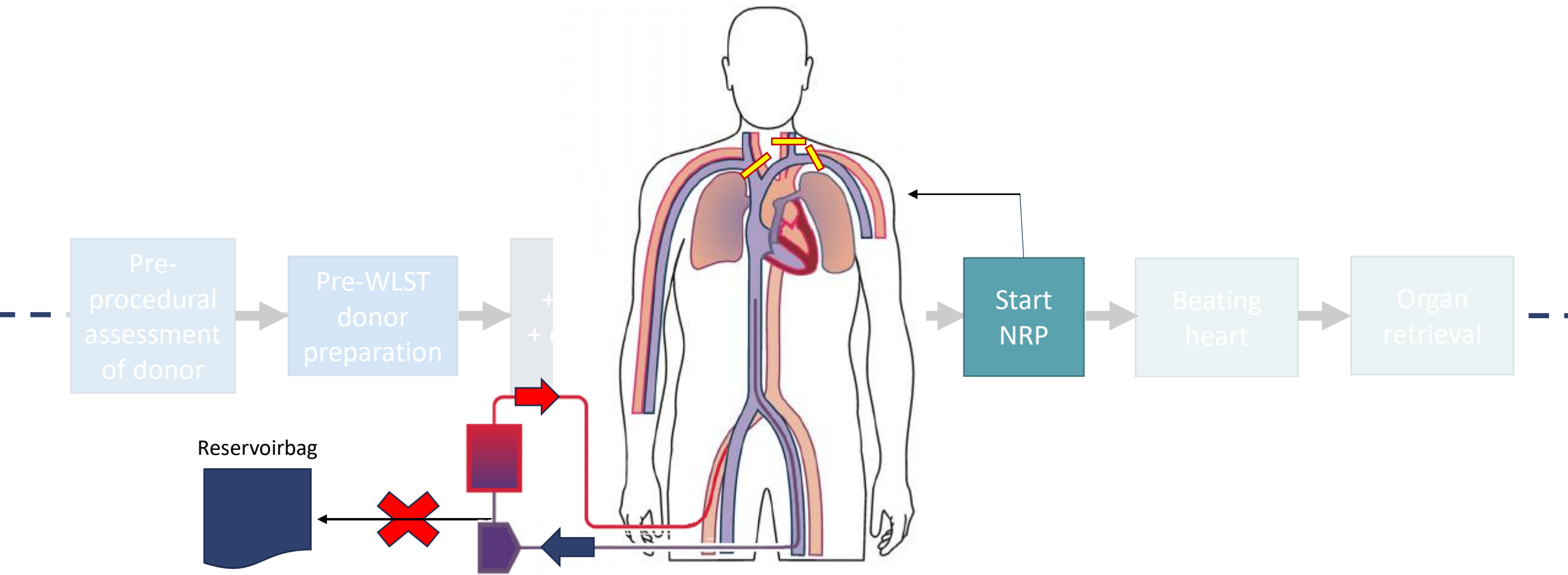
Simultaneously: Abdominal team opens sternum
3. Cardiac surgeon clamps supra-aortic vessels

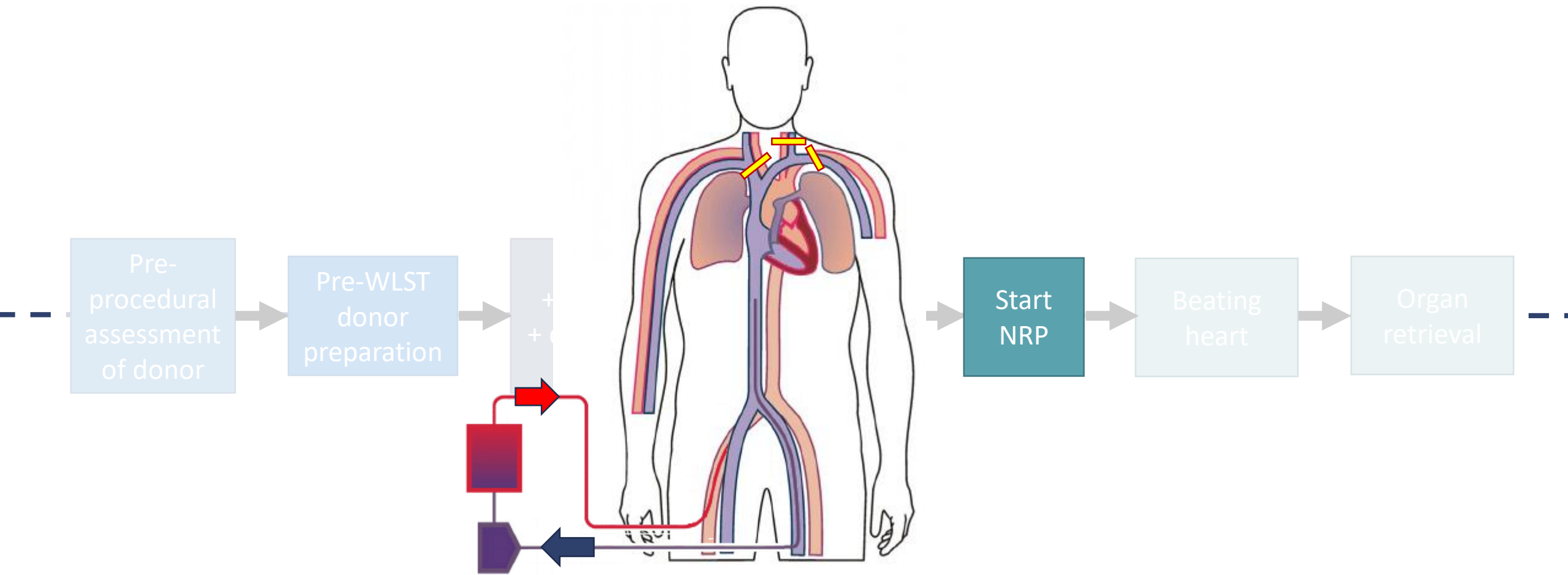


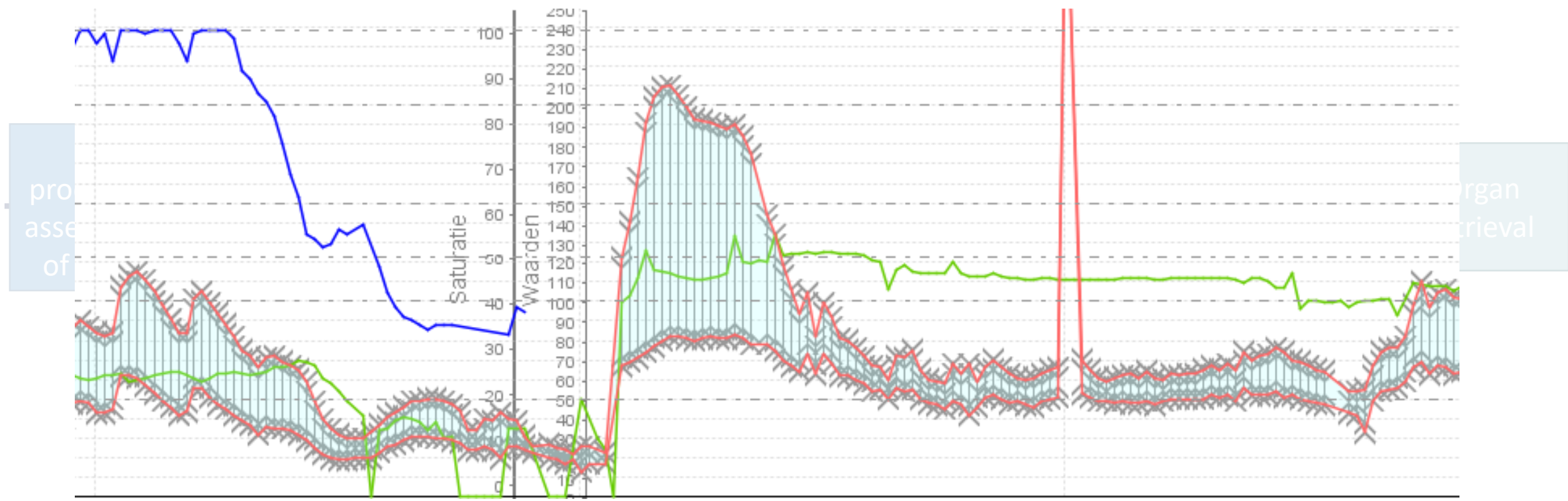
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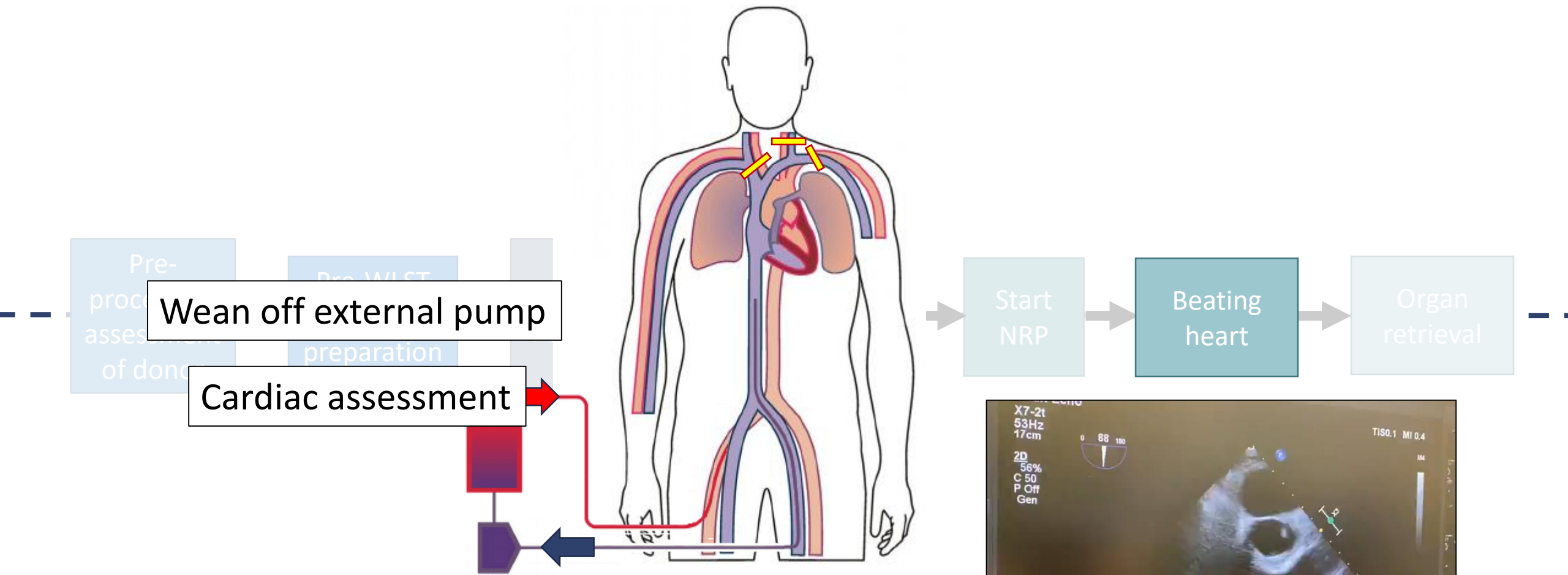


Cardiac surgeon opens sternum and clamps supra-aortic vessels

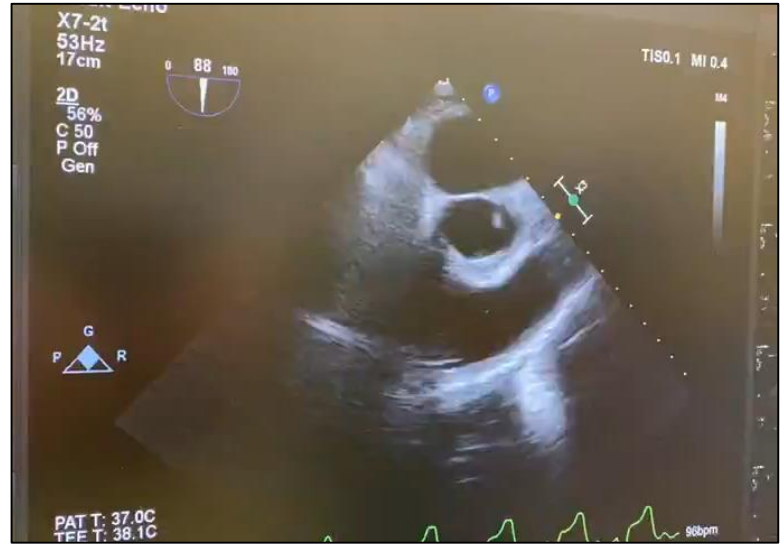


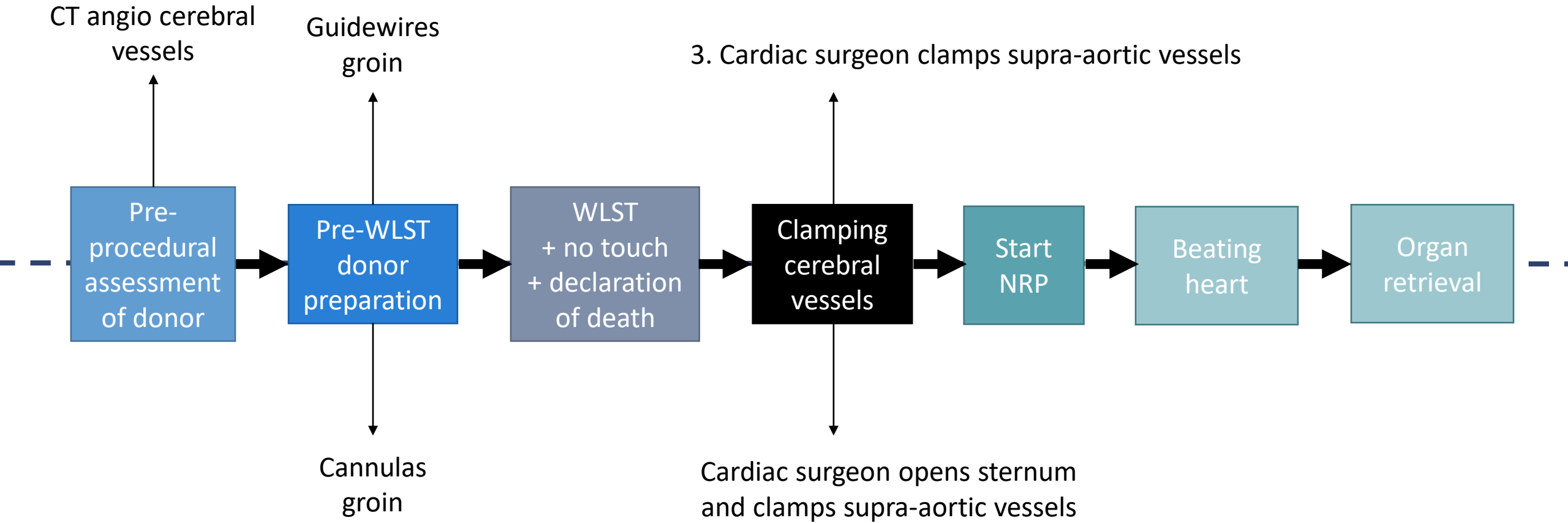






Cardiac assessment





	CHU LIEGE	UZ LEUVEN
# of NRP procedures		3
Hearts transplanted		2
	2 procured in CHU Liege and transplanted in UZ Leuven	
Livers transplanted		3
Kidneys transplanted		6
Lungs transplanted		1 pair (sequential single lung Tx)

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