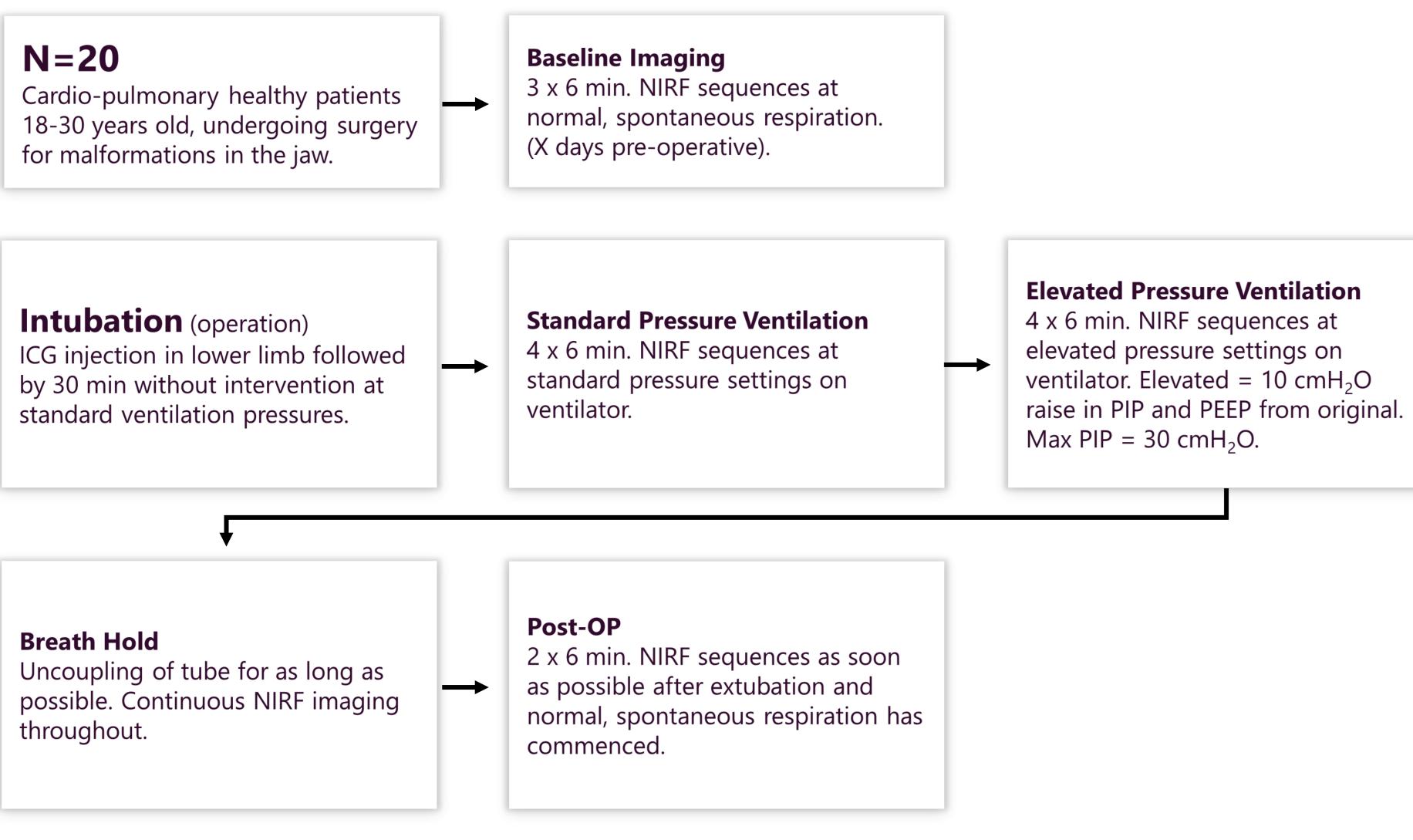


Background

The main lymphatic vessels run through the thoracic cavity, in which there exists a negative pressure during spontaneous breathing. Mechanical ventilation increases this pressure to positive, impeding venous return. We will investigate if this raise in pressure will also affect and possibly impede lymphatic return. This could be beneficial knowledge to avoid fluid retention in patients undergoing mechanical ventilation and for cardiovascular- and lymphatically- vulnerable patients fx. cyanotic congenital heart disease patients.

Methods

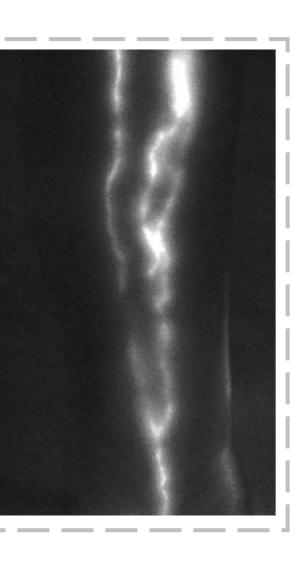


Results are pending

What is NIRF?

- 1. Intradermal injection of Indocyanine Green (ICG) in limb
- 2. Uptake of ICG in superficial lymph vessels
- 3. Excitation of ICG with laser
- 4. Recording of emitted light from fluorescent ICG
- 5. Quantification of functional lymph properties—velocity, rate/pulse

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ns: "breath" by Adrien Coquet & re" by Iconigu, form thenounproject.com.

Is elevated intrathoracic pressure during mechanical ventilation an uphill battle for the lymphatic system?

