

# How to became a National Centre for Pulmonary Hypertension at Neonates MS CURIE Children's Hospital : 18 years treatment experience

- ▶ 2000-2004 - lack of equipment support; only conventional ventilators and IV pumps
- ▶ 2004-2018 - year by year, good improvement for this severe neonatal condition
- ▶ Today: more than 300 cases oh Pulmonary Hypertension with diverse pathology
- ▶ We use:
  - ▶ IINHALLED NITRIC OXIDE (iNO)
  - ▶ All types of Mechanical Ventilation: CMV, HFOV, APRV, negative pressure ventilation
  - ▶ Helium
  - ▶ ECMO
  - ▶ Complex Pressure Monitoring ( Doppler, catheter measurement of pulmonary pressure)

# 2000 LOUISVILLE USA- AMERICAN-ROMANIAN GRANT

- ▶ Live First ECMO seen in PICU for critical status at a child
- ▶ Live iNO for PPHN at neonates in NICU
- ▶ Live HFOV ventilators (Senzormedics) at neonates with severe respiratory failure

# 2003 BELFAST – EUROPEAN RESPIRATORY SOCIETY GRANT

## Learning in Belfast HFOV and iNO treatment and Gently iNO equipment donation from Royal Jubilee Maternity to MS Curie Hospital



# 2004 - Romanian Academy of Science Grant different brands iNO gas supply for the Belfast SLE equipment



2007-2009

All the patients access to the treatment with iNO



# 2006 – First HFOV ventilators in Romania at MS Curie Hospital



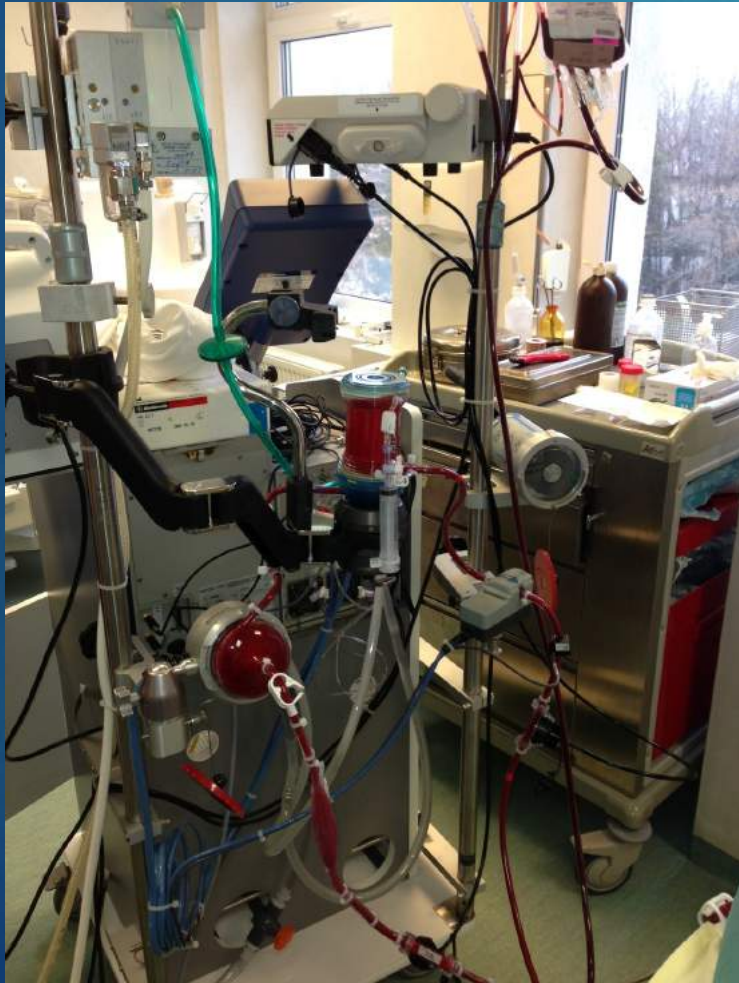
# 2009-2013 - Central Station Delivery iNO Facility for simultaneous 3 infants on iNO



# 2009-2013 - Central Station Delivery for iNO simultaneous possible 3 infants on iNO



**2013 - First ECMO cannulations, with no success keeping the patient under ECMO treatment.**



# 2013 - new iNO machines

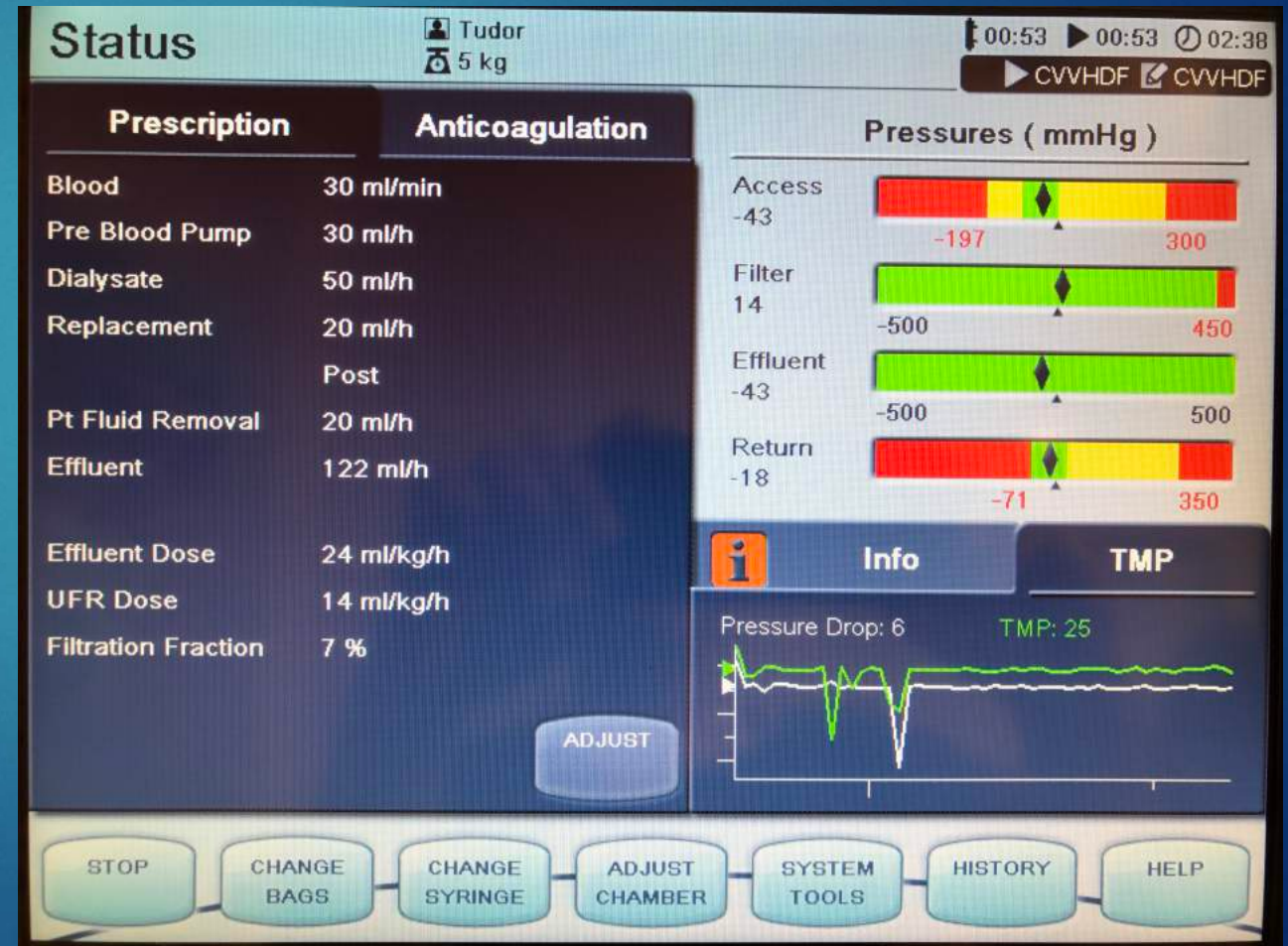
## Facility for simultaneous 4 patients on iNO



# 2017- first A-V ECMO for severe cardiac failure



# 2017 -First Cytokine filter for Sepsis and Secondary Severe Pulmonary Hypertension



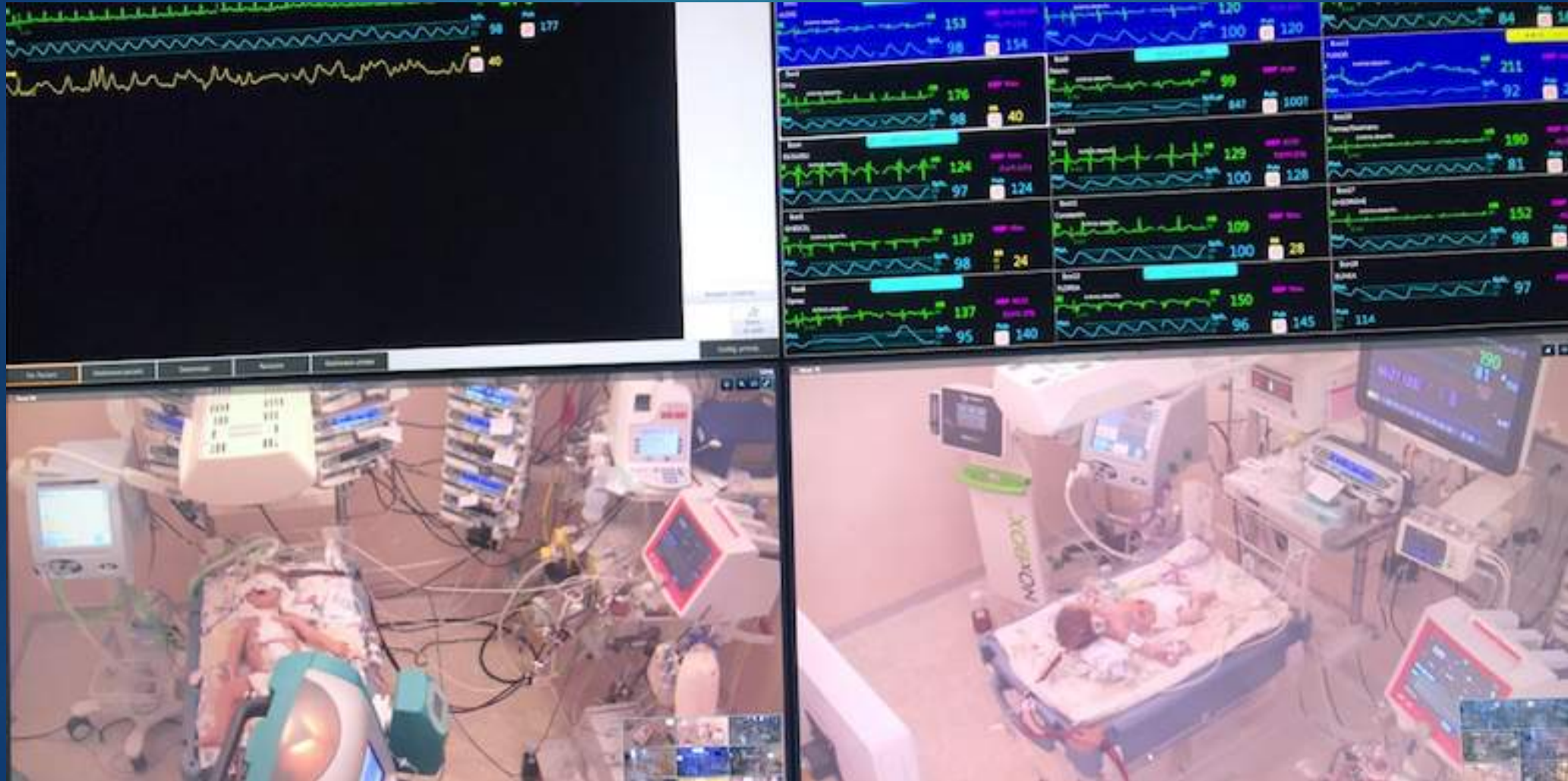
# 2017 - First ECMO plus CRRT plus Cytokine Filter at neonate



# 2018 - First V-V ECMO for Pulmonary Hypertension in congenital diaphragmatic hernia



# 2018 – First double simultaneous ECMO cases in the NICU



# 2018 – Very young team at cardiac surgery doing procedures in the NICU

