

# In neonates, how effective is lung ultrasonography in directing chest physiotherapy intervention when compared to the combination of chest x-ray and auscultation?

## Background

- Chest Physiotherapy (CPT) plays an important role in managing certain lung conditions in fragile infants
- Reliable and accessible tools are essential for accurate and safe CPT
- Currently, no Gold Standard measurement tool exists for CPT and traditional tools have significant limitations
- Lung ultrasound (LUS) is proposed to improve reliability and accuracy of CPT diagnosis and treatment choice

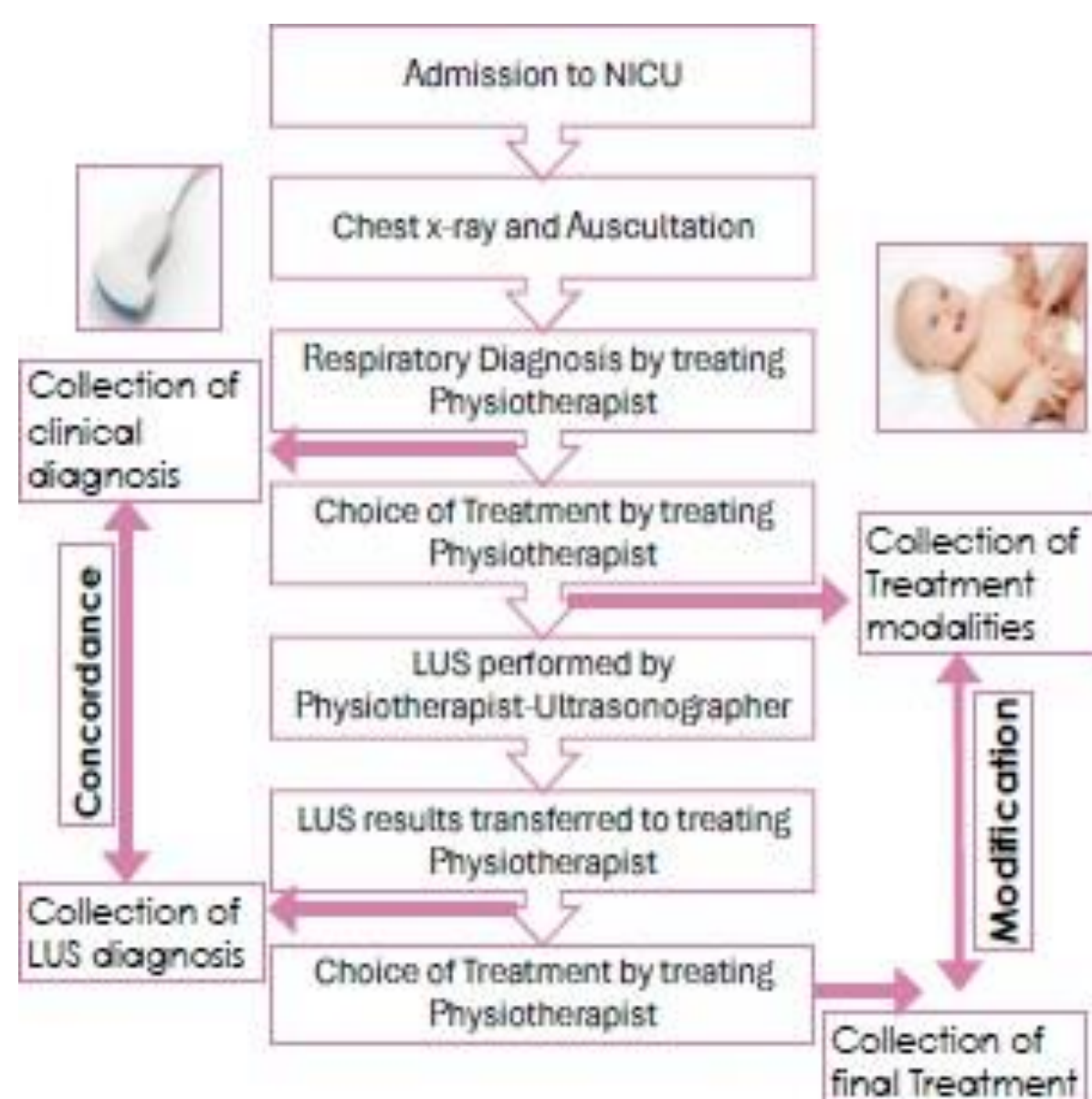
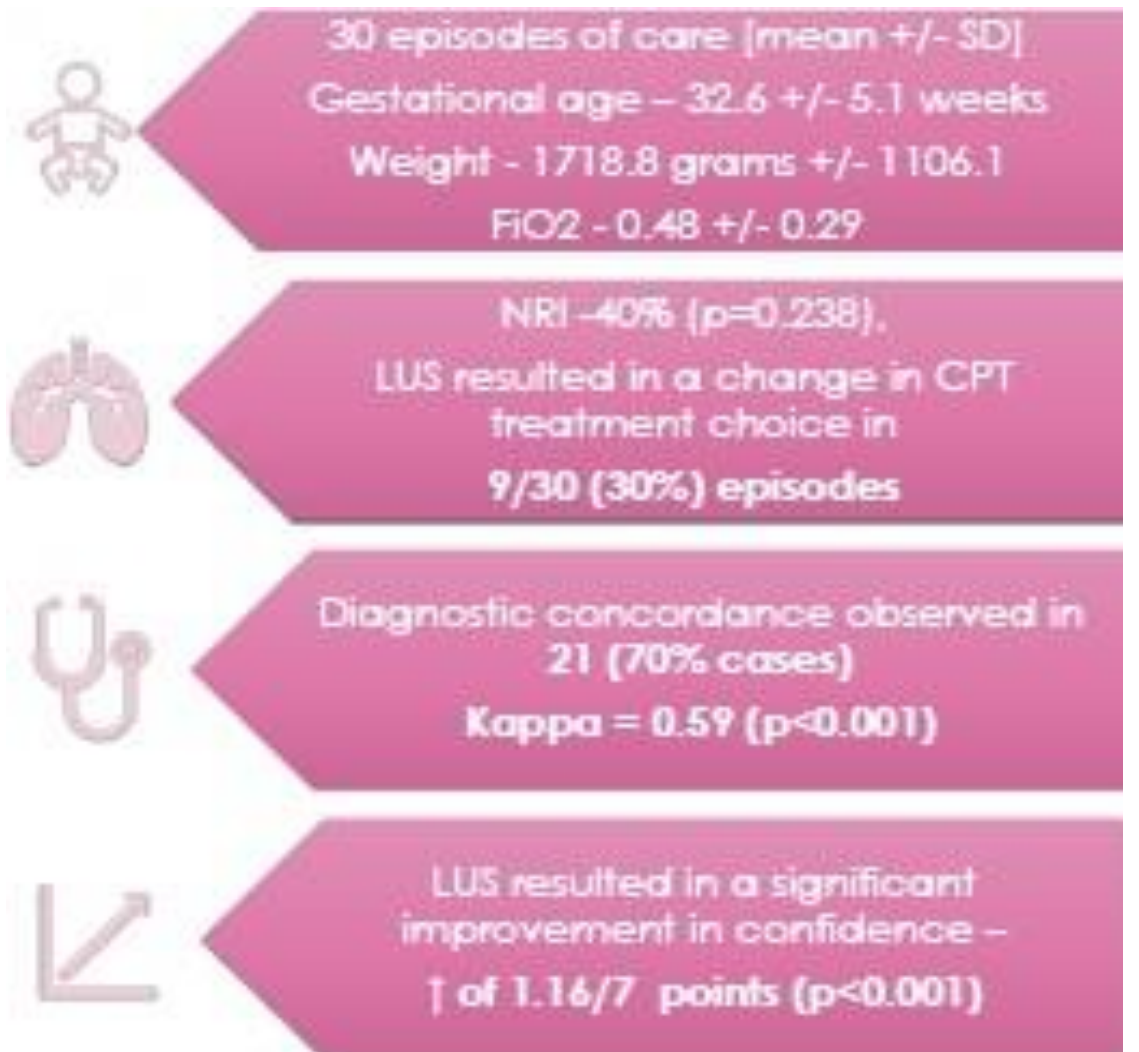
## Objective

To evaluate the impact of LUS compared to traditional CPT measurement tools (auscultation and CXR) on clinical decision-making and treatment choice in infants < 38 weeks gestation

## Outcome measures

- Net Reclassification Improvement (NRI) - how frequently both CPT diagnosis and treatment were changed after LUS
- Diagnostic concordance between CXR/ auscultation and LUS
- Physiotherapist diagnostic confidence

## Results



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**LUS changed diagnosis and treatment in one third of cases, indicating its potential for decision-making and therapist confidence in the NICU.**