

Lenus

COPD Digital Service with Machine Learning

Storm ID, the developer of the Lenus Digital Health and Care Platform, has created a COPD digital service with machine learning. The service seeks to reduce the number of emergency admissions to hospital amongst highest risk patients via remote monitoring of physiology data and risk stratification.

Background

- Collects physiology including respiratory rate, physical activity, heart rate and weekly patient reported outcomes.
- Use of machine learning models to help identify patients who are likely to have an exacerbation in the next five days that may result in an unplanned emergency hospital admission.
- Service fully integrated into clinical workflow for both acute clinicians and community nurses to support intervention in the community. Pilot in NHS Greater Glasgow & Clyde with support from ehealth and clinical team.

License / Pricing

- Annual license fee. Cost depends on range of factors, including integrations with statutory systems, service design consultancy etc.

Benefits

- Digital remote monitoring service for high risk COPD patients to reduce unplanned emergency hospital admissions.
- Develop initial models to stratify exacerbation risks
- Ongoing tuning of model, providing real-time view of patient data and decision support prompts across 4 key indicators:
 - Exacerbation and admission risk potential
 - Benefit from escalation of intervention
 - Respiratory failure - success /failure flags
 - Mortality - directing Anticipatory Care Planning