**Chest X-ray Abnormality Detection AI**

**Intended Use (SaMD)**

This software is intended for use by qualified radiologists and medical professionals to assist in the interpretation of posteroanterior (PA) chest X-rays. It automatically analyses input images and highlights suspected abnormalities to support faster, consistent, and more accurate diagnoses.

The AI model is capable of detecting multiple clinically significant thoracic findings, including:

* Ground-glass opacities (GGO)
* Hilar prominence
* Koch’s lesions (tuberculosis indicators)
* Swine flu
* Pulmonary nodules
* Rib fractures
* Lung consolidation
* Cardiomegaly
* Pleural effusion
* Blunted Costophrenic (CP) angles
* Pulmonary fibrosis
* Pneumothorax

The device is designed for use in hospitals, diagnostic centre’s, and telemedicine platforms. It serves as a diagnostic aid, acting as a second reader to enhance clinical workflow efficiency and support early disease detection. Final diagnostic responsibility remains with the attending medical professional.

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### ****Competitors in the Market****

| **Company / Product** | **Key Features** | **Remarks** |
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| **Qure.ai (qXR)** | Detects 30+ chest findings, TB screening, triage & workflow automation | CE certified, widely deployed in India & abroad |
| **Lunit INSIGHT CXR** | AI analysis of chest X-rays for 10 major abnormalities | CE, FDA cleared; focus on radiology integration |
| **DeepTek CXR AI** | Findings classification, structured report generation | India-based, PACS integration; radiologist-in-loop |
| **Zebra Medical Vision** | Multiple radiology algorithms including chest X-ray | Acquired by Nanox, focus on population screening |
| **Oxipit ChestLink** | Autonomous reporting for normal CXRs | CE MDR-approved, used in Europe |