Product Profile: Infervision

Product name	InferRead DR Chest
Company	Beijing Infervision Technology Co., Ltd.
Company HQ	Beijing, China
Version	1.0.0.0
Website	www.infervision.com
Demo	
Last Updated	April 17, 2020
Description	InferRead DR Chest is a screening tool that analyzes chest radiograph DICOM images from medical imaging storage devices and automatically evaluates the probability of the TB abnormality. It shows the abnormal cases in a study list. InferRead DR Chest is used to assist doctors in the diagnostic process, it is not used as a confirmatory diagnostic tool on its own. InferRead DR Chest product offers different model configurations that adapt to different use cases.
Certification	Stage of development: On the market Certification: CE-marked
Intended Age Group	16+ years (approved); manufacturer also recommends 12-18 years
Target Setting	Primary health centers, general hospital (above primary level), teleradiology companies, government/public sector e.g. national TB program, private sector
Current Market	As of December 2019, Infervision has domestic service-sites covering 32 provincial regions, and has expanded the global strategic layout to North America, Asia-Pacific and Europe regions, with presence in nine countries worldwide. They plan to market their product worldwide.
Input	Can be used to read images from any kind of chest X-ray machine. Chest X-ray image format: JPEG, PNG, DICOM Chest X-ray type: Posterior-anterior chest X-ray, anterior-posterior chest X-ray Other requirements: Requirements shall be specified according to local circumstances.
Output	Structured report includes: - Heat map, - Dichotomous output indicating the presence or absence of the following abnormalities: o TB, Abscess, Airfluid level, Atelectasis, Blunted costophrenic angle, Bronchiectasis, Calcification, Cavity, Chest wall invasion/destruction, Consolidation, Fibrosis, Honeycombing, Hyperinflation, Interstitial markings, Loculated pleural effusion, Mass, Nodule, Opacity, Pleural effusion, Prominence in hilar region, Pneumothorax,

	- Probability score for TB, - Probability score for each abnormality, Location of each abnormality.
Deployment	Online & Offline
Hardware	The computer in place should meet the following requirements: 1. CPU: Intel Core i3 and above 2. Memory: Above 4G
X Ray Machine Validation	Validation is required if the product is installed on the X-Ray machine for the first time. The data transmission needs to be tested to guarantee the workflow can operate appropriately.
Software	The computer in place should meet the requirements: 1. Operating system: Windows XP and above 2. Browser：Chrome 49.0 and above Requirements for server software: 1. Operating System：Ubuntu 18.04 LTS and above 2. Browser：Chrome 49.0 and above
Server	Requirements for server hardware: 1. CPU：Intel i7 6850K processor and above 2. GPU：NVIDIA GeForce 1080 and above or V100 and above 3. Memory：DDR4 is recommended with a capacity of at least 16G 4. Hard disk：For system disk, choose solid state hard disks with capacity of at least 120G; A high-speed mechanical hard disk with a capacity of at least 3T and rotation speed of 7200 rpm shall be selected as the storage disk. 5. Network card：1000M PCI-E network card
Integration	It is possible to integrate the product with the client's legacy Picture Archiving and Communication System (PACS).

Processing Time	In the case of the minimum client configuration, and under gigabit broadband, it takes less than 5 seconds to process 1 DICOM image less than 20 ms.
Data Sharing & Privacy	
Server location (for online product)	Located worldwide (google cloud) and/or a local or national server can be set up if required.
Data shared with manufacturer?	No
De-identification (option to deidentify?)	De-identification option can be provided if required by customer.
Software Updates	Please contact the company for this information (contact@infervision.com)
Price	Flexible pricing models are available. Please contact the company for quote (contact@infervision.com)
Product Development	
Method	Supervised deep learning (CNN, RNN)
Training	Please contact the company for this information (contact@infervision.com)
Reference Standard	Culture, smear, and human reader
Publications	Peer-reviewed publications are not yet available.