

## TB Publications

As of January, 2023

| Clinical Publication |   |  |  |               |                       |                                    |   |
|----------------------|---|--|--|---------------|-----------------------|------------------------------------|---|
| Year                 | Title   | Journal / Publication                                      | Key Words  | Region        | Country               | Delft's Solution                   | Link  |
| 2022                 | The performance of computer-aided detection digital chest X-ray reading technologies for triage of 2 active Tuberculosis among persons with a history of previous Tuberculosis                              | Clinical Infectious Diseases                               | Persons with previously treated TB   | Africa        | Zambia                | CAD4TB (ver.7)                     | <a href="https://doi.org/10.1093/cid/ciac679">https://doi.org/10.1093/cid/ciac679</a>                               |
| 2022                 | Portable digital X-ray for TB pre-diagnosis screening in rural communities in Nigeria   | Public Health Action                                       | Active case finding  | Africa        | Nigeria               | Delft Light CAD4TB (ver.6)         | <a href="https://pubmed.ncbi.nlm.nih.gov/35734009/">https://pubmed.ncbi.nlm.nih.gov/35734009/</a>                   |
| 2022                 | Population-wide active case finding and prevention for tuberculosis and leprosy elimination in Kiribati: the PEARL study protocol   | BMJ Open   | Active case finding  | Asia          | Kiribati              | CAD4TB (ver.6)                     | <a href="https://bmiopen.bmi.com/content/12/4/e055295?rss=1">https://bmiopen.bmi.com/content/12/4/e055295?rss=1</a> |
| 2022                 | Integrated screening and testing for TB and COVID-19 in Peru  | Public Health Action                                       | TB & COVID-19  | Latin America | Peru                  | CAD4TB<br>CAD4COVID                | <a href="https://doi.org/10.5588/pha.21.0077">https://doi.org/10.5588/pha.21.0077</a>                               |
| 2021                 | Triage of Persons With Tuberculosis Symptoms Using Artificial Intelligence–Based Chest Radiograph Interpretation: A Cost-Effectiveness Analysis   | Open Forum Infectious Diseases                             | Cost effectiveness   | Asia          | Pakistan              | CAD4TB (ver.6)                     | <a href="https://doi.org/10.1093/ofid/ofab567">https://doi.org/10.1093/ofid/ofab567</a>                             |
| 2021                 | Accuracy of computer-aided chest X-ray screening in the Kenya National Tuberculosis Prevalence Survey   | MedRxiv  | Performance evaluation, community-based screening, prevalence                | Africa        | Kenya                 | CAD4TB (ver.6)                     | <a href="https://doi.org/10.1101/2021.10.21.21265321">https://doi.org/10.1101/2021.10.21.21265321</a>               |
| 2021                 | Early TB case detection by community-based mobile X-ray screening and Xpert testing in Balochistan  | Public Health Action                                       | Community-based screening  | Asia          | Pakistan              | CAD4TB                             | <a href="https://doi.org/10.5588/pha.21.0050">https://doi.org/10.5588/pha.21.0050</a>                               |
| 2021                 | Computer-aided X-ray screening for tuberculosis and HIV testing among adults with cough in Malawi (the PROSPECT study): A randomised trial and cost-effectiveness analysis                                  | PLOS Medicine  | TB/HIV   | Africa        | Malawi                | CAD4TB (ver.5)                     | <a href="https://doi.org/10.1371/journal.pmed.1003752">https://doi.org/10.1371/journal.pmed.1003752</a>             |
| 2021                 | Use of targeted mobile X-ray screening and computer-aided detection software to identify tuberculosis among high-risk groups in Romania: descriptive results of the E-DETECT TB active case-finding project | BMJ Open   | Active case finding  | Europe        | Romania               | CAD4TB (ver.6)<br>CAD4TB (ver.5)   | <a href="https://bmiopen.bmi.com/content/11/8/e045289">https://bmiopen.bmi.com/content/11/8/e045289</a>             |
| 2021                 | Computer-aided interpretation of chest radiography reveals the spectrum of tuberculosis in rural South Africa   | npj Digital Medicine                                       | Active case finding, TB/HIV  | Africa        | South Africa          | CAD4TB (ver.6)<br>CAD4TB (ver.5)   | <a href="https://doi.org/10.1038/s41746-021-00471-y">https://doi.org/10.1038/s41746-021-00471-y</a>                 |
| 2020                 | Automated chest radiography and mass systematic screening for tuberculosis  | The International Journal of Tuberculosis and Lung Disease | Systematic screening   | Asia          | Pakistan              | CAD4TB                             | <a href="https://doi.org/10.5588/ijtld.19.0501">https://doi.org/10.5588/ijtld.19.0501</a>                           |
| 2020                 | Evaluation of computer aided detection of tuberculosis on chest radiography among people with diabetes in Karachi Pakistan  | Nature Scientific Reports                                  | TB / Diabetes Mellitus (DM)  | Asia          | Pakistan              | CAD4TB (ver. 3.07)                 | <a href="https://doi.org/10.1038/s41598-020-63084-7">https://doi.org/10.1038/s41598-020-63084-7</a>                 |
| 2020                 | Computer Aided Detection of Tuberculosis on Chest Radiographs: An Evaluation of the CAD4TB v6 system  | Nature Scientific Reports                                  | Cost effectiveness, performance evaluation                                   | Asia          | Pakistan, Netherlands | CAD4TB (ver.6)                     | <a href="https://doi.org/10.1038/s41598-020-62148-y">https://doi.org/10.1038/s41598-020-62148-y</a>                 |
| 2020                 | Symptom and Digital Chest X-ray TB Screening in South African Prisons: Yield and Cost Effectiveness   | The International Journal of Tuberculosis and Lung Disease | Cost effectiveness, performance evaluation                                   | Africa        | South Africa          | CAD4TB                             | <a href="https://doi.org/10.5588/ijtld.19.0214">https://doi.org/10.5588/ijtld.19.0214</a>                           |
| 2020                 | A Public-Private Model to Scale Up Diabetes Mellitus Screening Among People Accessing Tuberculosis Diagnostics in Dhaka, Bangladesh   | The International Journal of Tuberculosis and Lung Disease | TB / Diabetes Mellitus (DM)  | Asia          | Bangladesh            | CAD4TB (ver.3.07)<br>Easy DR X-ray | <a href="https://doi.org/10.1016/j.ijtld.2020.01.001">https://doi.org/10.1016/j.ijtld.2020.01.001</a>               |
| 2020                 | Yield, Efficiency and Costs of Mass Screening Algorithms for Tuberculosis in Brazilian Prisons  | Clinical infectious diseases                               | Cost effectiveness, active case finding, prevalence survey, prison screening | Latin America | Brazil                | CAD4TB                             | <a href="https://doi.org/10.1093/cid/ciaa135">https://doi.org/10.1093/cid/ciaa135</a>                               |
| 2019                 | Prevalence of Tuberculosis, HIV/AIDS, and Hepatitis; in a Prison of Balochistan: a Cross-Sectional Survey   | BMC public health  | TB/HIV, active case finding, prevalence survey, prison screening             | Asia          | Pakistan              | CAD4TB                             | <a href="https://doi.org/10.1186/s12889-019-8011-7">https://doi.org/10.1186/s12889-019-8011-7</a>                   |
| 2019                 | Automated Chest X-ray Reading for Tuberculosis in the Philippines to Improve Case Detection: a Cohort Study   | The International Journal of Tuberculosis and Lung Disease | Performance evaluation   | Asia          | Philippines           | CAD4TB (ver.5)                     | <a href="https://doi.org/10.5588/ijtld.18.0004">https://doi.org/10.5588/ijtld.18.0004</a>                           |
| 2018                 | Computer-Assisted Chest Radiography Reading for Tuberculosis Screening in People Living with Diabetes Mellitus  | The International Journal of Tuberculosis and Lung Disease | TB / Diabetes Mellitus (DM)  | Asia          | Indonesia             | CAD4TB (ver.5)                     | <a href="https://doi.org/10.5588/ijtld.17.0827">https://doi.org/10.5588/ijtld.17.0827</a>                           |
| 2018                 | Evaluation of the Diagnostic Accuracy of Computer-Aided Detection of Tuberculosis on Chest Radiography Among Private Sector Patients in Pakistan  | Nature Scientific Reports                                  | Cost effectiveness   | Asia          | Pakistan              | CAD4TB (ver. 3.07)                 | <a href="https://doi.org/10.1038/s41598-018-30810-1">https://doi.org/10.1038/s41598-018-30810-1</a>                 |
| 2018                 | Accuracy of an Automated System for Tuberculosis Detection on Chest Radiographs in High-risk Screening  | The International Journal of Tuberculosis and Lung Disease | Cost effectiveness, active case finding                                      | Europe        | UK                    | CAD4TB (ver.5)                     | <a href="https://doi.org/10.5588/ijtld.17.0492">10.5588/ijtld.17.0492</a>   |
| 2017                 | Computer-Aided Reading of Tuberculosis Chest Radiography: Moving the Research Agenda Forward to Inform Policy   | European Respiratory Journal                               | Research agenda  | -             | -                     | CAD4TB                             | <a href="https://erj.ersjournals.com/content/50/1/1700953">https://erj.ersjournals.com/content/50/1/1700953</a>     |

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|------|--|--|---|--------|--------------|-----------------------------------|---|
| 2017 | Automatic Versus Human Reading of Chest X-rays in the Zambia National Tuberculosis Prevalence Survey   | The International Journal of Tuberculosis and Lung Disease                               | Performance evaluation, prevalence survey                     | Africa | Zambia       | CAD4TB (ver.5)                    | <a href="https://www.diagnijmegen.nl/publications/mele17/">https://www.diagnijmegen.nl/publications/mele17/</a>                               |
| 2017 | Digital CXR with Computer-Aided Diagnosis Versus Symptom Screen to Define Presumptive Tuberculosis Among Households Contacts and Impact on Tuberculosis Diagnosis                          | BMC Infectious Diseases  | Household contact   | Africa | Zambia       | CAD4TB (ver.1.08)                 | <a href="https://doi.org/10.1186/s12879-017-2388-7">https://doi.org/10.1186/s12879-017-2388-7</a>   |
| 2017 | An Evaluation of Automated Chest Radiography Reading Software for Tuberculosis Screening Among Public- and Private-sector Patients   | European Respiratory Journal   | Cost effectiveness  | Asia   | Bangladesh   | CAD4TB (ver. 3.07)<br>EZ DR X-ray | <a href="https://erj.ersjournals.com/content/49/5/1602159">https://erj.ersjournals.com/content/49/5/1602159</a>                               |
| 2016 | An Automated Tuberculosis Screening Strategy Combining X-ray Based Computer-Aided Detection and Clinical Information   | Nature Scientific Reports  | Performance evaluation  | Africa | South Africa | CAD4TB (ver. 3.07)<br>Odelca DR   | <a href="https://doi.org/10.1038/srep25265">https://doi.org/10.1038/srep25265</a>   |
| 2015 | Screening for Pulmonary Tuberculosis in a Tanzanian Prison and Computer-Aided Interpretation of Chest X-rays   | Public Health Action   | Active case finding, prison screening, performance evaluation | Africa | Tanzania     | CAD4TB (ver. 3.07)<br>Odelca DR   | <a href="https://doi.org/10.5588/pha.15.0037">https://doi.org/10.5588/pha.15.0037</a>   |
| 2015 | Automated Chest-radiography as a Triage for Xpert Testing in Resource-Constrained Settings: a Prospective Study of Diagnostic Accuracy and Costs.  | Nature Scientific Reports  | Cost effectiveness  | Africa | South Africa | CAD4TB (ver. 3.07)<br>Odelca DR   | <a href="https://doi.org/10.1038/srep12215">https://doi.org/10.1038/srep12215</a>   |
| 2015 | Computerized Reading of Chest Radiographs in The Gambia National Tuberculosis Prevalence Survey: Retrospective Comparison with Human Experts   | Proceeding from Union World Conference on Lung Health                                    | Performance evaluation  | Africa | Gambia       | CAD4TB                            | <a href="http://www.diagnijmegen.nl/index.php/Publication?bibkey=Madu15">http://www.diagnijmegen.nl/index.php/Publication?bibkey=Madu15</a>   |
| 2015 | Objective Computerized Chest Radiography Screening to Detect Tuberculosis in the Philippines   | Proceeding from Union World Conference on Lung Health                                    | Performance evaluation, prison screening                      | Asia   | Philippines  | CAD4TB (ver. 4.10)                | <a href="http://www.diagnijmegen.nl/index.php/Publication?bibkey=Phil15a">http://www.diagnijmegen.nl/index.php/Publication?bibkey=Phil15a</a> |
| 2014 | Diagnostic Accuracy of Computer-Aided Detection of Pulmonary Tuberculosis in Chest Radiographs: A Validation Study from Sub-Saharan Africa   | PLOS one   | Performance evaluation  | Africa | Tanzania     | CAD4TB (ver. 3.07)                | <a href="https://doi.org/10.1371/journal.pone.0106381">https://doi.org/10.1371/journal.pone.0106381</a>                                       |
| 2014 | The Sensitivity and Specificity of Using a Computer Aided Diagnosis Program for Automatically Scoring Chest X-Rays of Presumptive TB Patients Compared with Xpert MTB/RIF in Lusaka Zambia | PLOS one   | Performance evaluation, TB/HIV                                | Africa | Zambia       | CAD4TB (ver.1.08)                 | <a href="https://doi.org/10.1371/journal.pone.0093757">https://doi.org/10.1371/journal.pone.0093757</a>                                       |
| 2014 | Detection of Chest X-ray abnormalities and tuberculosis using computer-aided detection vs interpretation by radiologists and a clinical officer  | Proceeding from Union World Conference on Lung Health                                    | Performance evaluation  | Asia   | Pakistan     | CAD4TB (ver. 3.07)                | <a href="https://www.diagnijmegen.nl/publications/khan14/">https://www.diagnijmegen.nl/publications/khan14/</a>                               |
| 2013 | Detection of Tuberculosis Using Digital Chest Radiography: Automated Reading vs. Interpretation by Clinical Officers   | The International Journal of Tuberculosis and Lung Disease, European respiratory Journal | Performance evaluation  | Africa | Zambia       | CAD4TB (ver.1.08)<br>Odelca DR    | <a href="https://doi.org/10.5588/ijtld.13.0325">https://doi.org/10.5588/ijtld.13.0325</a>   |

| Technical Publication |   |                                     |  |               |                                   |                                      |   |
|-----------------------|---|-------------------------------------|--|---------------|-----------------------------------|--------------------------------------|---|
| 2023                  | Evaluation of chest X-ray with automated interpretation algorithms for mass tuberculosis screening in prisons: A cross-sectional study  | The Lancet Regional Health Americas | Performance comparison of CAD software           | Latin America | Brazil                            | CAD4TB (ver.6)                       | <a href="https://doi.org/10.1016/j.lana.2022.100388">https://doi.org/10.1016/j.lana.2022.100388</a>   |
| 2022                  | Early user experience and lessons learned using ultra-portable digital X-ray with computer-aided detection (DXR-CAD) products: A qualitative study from the perspective of healthcare providers | medRxiv                             | User experience of ultra-portable X-ray with CAD | Various       | Various                           | CAD4TB<br>Delft Light<br>Delft Ultra | <a href="https://doi.org/10.1101/2022.11.04.22281963">https://doi.org/10.1101/2022.11.04.22281963</a>   |
| 2022                  | Comparing different versions of computer-aided detection products when reading chest X-rays for tuberculosis  | PLOS Digital Health                 | Performance comparison of CAD software           | Asia          | Bangladesh                        | CAD4TB (ver.6 & 7)                   | <a href="https://doi.org/10.1371/journal.pdig.0000067">https://doi.org/10.1371/journal.pdig.0000067</a>   |
| 2022                  | "Similar performances but markedly different triaging thresholds in three CAD4TB versions risk systematic errors in TB screening programs"  | MedRxiv                             | Performance comparison of CAD software           | Africa        | South Africa                      | CAD4TB (ver.5, 6, 7)                 | <a href="https://doi.org/10.1101/2022.04.29.22274472">https://doi.org/10.1101/2022.04.29.22274472</a>   |
| 2022                  | Diagnostic accuracy of chest X-ray interpretation for tuberculosis by three artificial intelligence-based software in a screening use-case: an individual patient meta-analysis of global data  | MedRxiv                             | Performance comparison of CAD software           | Various       | Various                           | CAD4TB (ver.6)                       | <a href="https://doi.org/10.1101/2022.01.24.22269730">https://doi.org/10.1101/2022.01.24.22269730</a>   |
| 2021                  | Independent evaluation of 12 artificial intelligence solutions for the detection of tuberculosis  | Nature Scientific Reports           | Performance comparison of CAD software           | Asia          | Vietnam                           | CAD4TB (ver.7)                       | <a href="https://doi.org/10.1038/s41598-021-03265-0">https://doi.org/10.1038/s41598-021-03265-0</a>   |
| 2021                  | Tuberculosis detection from chest x-rays for triaging in a high tuberculosis-burden setting: an evaluation of five artificial intelligence algorithms   | The Lancet Digital Health           | Performance comparison of CAD software           | Asia          | Bangladesh                        | CAD4TB (ver.7)<br>Easy DR            | <a href="https://www.thelancet.com/journals/landia/article/PIIS2589-7500(21)00116-3/fulltext">https://www.thelancet.com/journals/landia/article/PIIS2589-7500(21)00116-3/fulltext</a> |
| 2021                  | Chest X-ray analysis with deep learning-based software as a triage test for pulmonary tuberculosis: an individual patient data meta-analysis of diagnostic accuracy                             | Clinical Infectious Diseases        | Performance comparison of CAD software           | Global        | Pakistan, South Africa, Tanzania, | CAD4TB (ver.6)                       | <a href="https://doi.org/10.1093/cid/ciab639">https://doi.org/10.1093/cid/ciab639</a>   |
| 2021                  | Can artificial intelligence (AI) be used to accurately detect tuberculosis (TB) from chest X-rays? An evaluation of five AI products for TB screening and triaging in a high TB burden setting  | ArXiv                               | Performance comparison of CAD software           | Asia          | Bangladesh                        | CAD4TB (ver.7)                       | <a href="https://arxiv.org/ftp/arxiv/papers/2006/2006.05509.pdf">https://arxiv.org/ftp/arxiv/papers/2006/2006.05509.pdf</a>   |

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|------|---|--|--|--------------|-----------------|------------------|---|
| 2021 | Application of artificial intelligence in digital chest radiography reading for pulmonary tuberculosis screening  | Chronic Diseases and Translational Medicine                | Review of CAD related articles                       | All          | All             | CAD4TB (ver.6)   | <a href="https://doi.org/10.1016/j.cdtm.2021.02.001">https://doi.org/10.1016/j.cdtm.2021.02.001</a>   |
| 2021 | A new resource on artificial intelligence powered computer automated detection software products for tuberculosis programmes and implementers   | Tuberculosis   | Performance comparison of CAD software               | All          | All             | CAD4TB (ver.6)   | <a href="https://doi.org/10.1016/j.tube.2020.102049">https://doi.org/10.1016/j.tube.2020.102049</a>   |
| 2020 | Chest X-ray Analysis with Deep Learning-Based Software as a Triage Test for Pulmonary Tuberculosis: a Prospective Study of Diagnostic Accuracy for Culture-Confirmed Disease                | The Lancet Digital Health                                  | WHO criteria, performance comparison of CAD software | Asia         | Pakistan        | CAD4TB (ver.6)   | <a href="https://www.thelancet.com/journals/landig/article/PIIS2589-7500(20)30221-1/fulltext">https://www.thelancet.com/journals/landig/article/PIIS2589-7500(20)30221-1/fulltext</a> |
| 2020 | Can Artificial Intelligence Be Used to Accurately Detect Tuberculosis (TB) from Chest X-ray? A Multi-Platform Evaluation of Five AI Products Used for TB Screening in a High-Burden setting | ArXiv  | Performance comparison of CAD software               | Asia         | Bangladesh      | CAD4TB (ver.6)   | <a href="https://doi.org/10.48550/arXiv.2006.05509">https://doi.org/10.48550/arXiv.2006.05509</a>   |
| 2019 | Using Artificial Intelligence to Read Chest Radiographs for Tuberculosis Detection: A Multi-Site Evaluation of the Diagnostic Accuracy of Three Deep Learning Systems                       | Nature Scientific Reports                                  | Performance comparison of CAD software               | Asia, Africa | Nepal, Cameroon | CAD4TB           | <a href="https://doi.org/10.1038/s41598-019-51503-3">https://doi.org/10.1038/s41598-019-51503-3</a>   |
| 2019 | A systematic review of the diagnostic accuracy of artificial intelligence-based computer programs to analyze chest X-rays for pulmonary tuberculosis  | PLOS one   | Review of CAD related articles                       |              |                 | CAD4TB           | <a href="https://doi.org/10.1371/journal.pone.0221339">https://doi.org/10.1371/journal.pone.0221339</a>   |
| 2017 | Fast and Effective Quantification of Symmetry in Medical Images for Pathology Detection: Application to Chest Radiography   | Medical Physics  | Symmetry computation                                 |              |                 |                  | <a href="https://doi.org/10.1002/mp.12127">https://doi.org/10.1002/mp.12127</a>   |
| 2016 | Automatic Detection of Pleural Effusion in Chest Radiographs  | Medical Image Analysis                                     | Detect pleural effusion (PE)                         |              |                 |                  | <a href="https://doi.org/10.1016/j.media.2015.09.004">https://doi.org/10.1016/j.media.2015.09.004</a>   |
| 2016 | Computer-Aided Detection of Pulmonary Tuberculosis on Digital Chest Radiographs: a Systematic Review  | The International Journal of Tuberculosis and Lung Disease | Systematic review                                    |              |                 | CAD4TB           | <a href="https://doi.org/10.5588/ijtld.15.0926">https://doi.org/10.5588/ijtld.15.0926</a>   |
| 2015 | On Combining Multiple-Instance Learning and Active Learning for Computer-Aided Detection of Tuberculosis  | IEEE Transactions on Medical Imaging                       |  |              |                 |                  | <a href="https://ieeexplore.ieee.org/document/7347438/">https://ieeexplore.ieee.org/document/7347438/</a>   |
| 2015 | Localized energy-based normalization of medical images: application to chest radiography  | IEEE Transactions on Medical Imaging                       |  |              |                 |                  | <a href="https://ieeexplore.ieee.org/document/7073580">https://ieeexplore.ieee.org/document/7073580</a>   |
| 2015 | Automatic Detection of Tuberculosis in Chest Radiographs Using a Combination of Textural, Focal, and Shape Abnormality Analysis   | IEEE Transactions on Medical Imaging                       |  |              |                 |                  | <a href="https://ieeexplore.ieee.org/document/7045613">https://ieeexplore.ieee.org/document/7045613</a>   |
| 2014 | A Novel Multiple-Instance Learning-Based Approach to Computer-Aided Detection of Tuberculosis on Chest X-Rays   | IEEE Transactions on Medical Imaging                       |  |              |                 |                  | <a href="https://ieeexplore.ieee.org/document/6882215">https://ieeexplore.ieee.org/document/6882215</a>   |
| 2014 | Cavity Contour Segmentation in Chest Radiographs Using Supervised Learning and Dynamic Programming  | Medical Physics  |  |              |                 |                  | <a href="https://doi.org/10.1118/1.4881096">https://doi.org/10.1118/1.4881096</a>   |
| 2014 | Multiple-instance learning for computer-aided detection of tuberculosis   | Medical Imaging  |  |              |                 |                  | <a href="https://doi.org/10.1117/12.2043018">https://doi.org/10.1117/12.2043018</a>   |
| 2013 | Suppression of Translucent Elongated Structures: Applications in Chest Radiography  | IEEE Transactions on Medical Imaging                       |  |              |                 |                  | <a href="https://ieeexplore.ieee.org/document/6564454">https://ieeexplore.ieee.org/document/6564454</a>   |
| 2013 | Foreign Object Detection and Removal to Improve Automated Analysis of Chest Radiographs   | Medical Physics  |  |              |                 |                  | <a href="https://doi.org/10.1118/1.4805104">https://doi.org/10.1118/1.4805104</a>   |
| 2013 | Automated Localization of Costophrenic Recesses and Costophrenic Angle Measurement on Frontal Chest Radiographs   | Proceeding from SPIE Medical Imaging 2013                  |  |              |                 |                  | <a href="https://doi.org/10.1117/12.2008239">https://doi.org/10.1117/12.2008239</a>   |
| 2013 | Improved Texture Analysis for Automatic Detection of Tuberculosis (TB) on Chest Radiographs with Bone Suppression Images  | Proceeding from SPIE Medical Imaging 2013                  |  |              |                 |                  | <a href="https://doi.org/10.1117/12.2008083">https://doi.org/10.1117/12.2008083</a>   |
| 2012 | Clavicle segmentation in chest radiographs  | Medical Image Analysis                                     |  |              |                 |                  | <a href="http://dx.doi.org/10.1016/j.media.2012.06.009">http://dx.doi.org/10.1016/j.media.2012.06.009</a>   |
| 2010 | Fusion of local and global detection systems to detect tuberculosis in chest radiographs  | Medical Image Computing and Computer-Assisted Intervention |  |              |                 |                  | <a href="https://link.springer.com/chapter/10.1007%2F978-3-642-15711-0_81">https://link.springer.com/chapter/10.1007%2F978-3-642-15711-0_81</a>                                       |
| 2010 | Rib Suppression in Chest Radiographs to Improve Classification of Textural Abnormalities  | Proceeding from SPIE Medical Imaging 2010                  |  |              |                 |                  | <a href="https://doi.org/10.1117/12.844409">https://doi.org/10.1117/12.844409</a>   |

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|------|--|--------------------------------------|-------------------|--------|---------|------------------|---|
| 2009 | Dissimilarity-based Classification in the Absence of Local Ground Truth: Application to the Diagnostic Interpretation of Chest Radiographs | Pattern Recognition                  |                   |        |         |                  | <a href="https://doi.org/10.1016/j.patcog.2009.01.016">https://doi.org/10.1016/j.patcog.2009.01.016</a> |
| 2007 | Computer-aided detection of interstitial abnormalities in chest radiographs using a reference standard based on computed tomography        | Medical Physics                      |                   |        |         |                  | <a href="https://doi.org/10.1118/1.2795672">https://doi.org/10.1118/1.2795672</a>                       |
| 2006 | Segmentation of Anatomical Structures in Chest Radiographs Using Supervised Methods: a Comparative Study on a Public Database              | Medical Image Analysis               | Lung segmentation | -      | -       | -                | <a href="https://doi.org/10.1016/j.media.2005.02.002">https://doi.org/10.1016/j.media.2005.02.002</a>   |
| 2002 | Automatic Detection of Abnormalities in Chest Radiographs Using Local Texture Analysis   | IEEE Transactions on Medical Imaging |                   |        |         |                  | <a href="https://ieeexplore.ieee.org/document/993132">https://ieeexplore.ieee.org/document/993132</a>   |

| Guidelines and policy papers |   |  |   |        |         |                                       |   |
|------------------------------|---|--|---|--------|---------|---------------------------------------|---|
| Year                         | Title   | Journal / Publication  | Key Words   | Region | Country | Delft's Solution                      | Link  |
| 2022                         | Tuberculosis Prevention and Care Among Refugees and Other Populations in Humanitarian Settings: an interagency field guide          | CDC, UNHCR, World Health Organization  | Digita X-ray and CAD                                    |        |         | CAD4TB                                | <a href="https://www.who.int/publications/i/item/9789240042087">https://www.who.int/publications/i/item/9789240042087</a>   |
| 2021                         | Screening and Triage for TB using Computer-Aided Detection (CAD) Technology and Ultra-portable X-Ray Systems: A Practical Guide     | Stop TB Partnership  | CAD for TB screening and triage<br>Ultra-portable X-ray |        |         | CAD4TB<br>Delft Light                 | <a href="https://www.stoptb.org/resources-implementing-cad-and-xray/cad-and-x-ray-practical-implementation-guide">https://www.stoptb.org/resources-implementing-cad-and-xray/cad-and-x-ray-practical-implementation-guide</a>   |
| 2021                         | Programmatic innovations to address challenges in tuberculosis prevention and care during the COVID-19 pandemic                     | World Health Organization  | TB and COVID-19   |        |         | CAD4TB                                | <a href="https://www.who.int/publications/i/item/programmatic-innovations-to-address-challenges-in-tuberculosis-prevention-and-care-during-the-covid-19-pandemic">https://www.who.int/publications/i/item/programmatic-innovations-to-address-challenges-in-tuberculosis-prevention-and-care-during-the-covid-19-pandemic</a> |
| 2021                         | Digital Chest Radiography and Computer-Aided Detection (CAD) Solutions for Tuberculosis Diagnostics - Technology Landscape Analysis | FIND   | Digita X-ray and CAD                                    |        |         | CAD4TB                                | <a href="https://www.finddx.org/wp-content/uploads/2021/04/FIND-CXR-CAD-solutions-for-TB-diagnosis-7Apr2021-2pg-spread.pdf">https://www.finddx.org/wp-content/uploads/2021/04/FIND-CXR-CAD-solutions-for-TB-diagnosis-7Apr2021-2pg-spread.pdf</a>   |
| 2021                         | WHO Consolidated guidelines on tuberculosis Module 2: Screening Systematic screening for tuberculosis disease                       | World Health Organization  | CAD Recommendation                                      |        |         | CAD4TB                                | <a href="https://apps.who.int/iris/bitstream/handle/10665/340256/9789240022614-eng.pdf">https://apps.who.int/iris/bitstream/handle/10665/340256/9789240022614-eng.pdf</a>   |
| 2021                         | WHO operational handbook on tuberculosis Module 2: Screening Systematic screening for tuberculosis disease                          | World Health Organization  | CAD Recommendation                                      |        |         | CAD4TB                                | <a href="https://apps.who.int/iris/bitstream/handle/10665/340255/9789240022676-eng.pdf">https://apps.who.int/iris/bitstream/handle/10665/340255/9789240022676-eng.pdf</a>   |
| 2020                         | Global Tuberculosis Report  | World Health Organization  |   |        |         | CAD4TB                                | <a href="https://apps.who.int/iris/bitstream/handle/10665/336069/9789240013131-eng.pdf?ua=1">https://apps.who.int/iris/bitstream/handle/10665/336069/9789240013131-eng.pdf?ua=1</a>   |
| 2019                         | StopTB Partnership Field Guide on Chest X-ray Screening   | StopTB Partnership   |   |        |         | CAD4TB                                | <a href="https://stoptb-strategicinitiative.org/index.php/2019/04/17/stoptb-field-guide-8-chest-x-ray-screening/">https://stoptb-strategicinitiative.org/index.php/2019/04/17/stoptb-field-guide-8-chest-x-ray-screening/</a>   |
| 2018                         | Mobile Care for TB Screening and Diagnosis - a How-To Guide   | USAID/ChallengeTB  | Mobile screening  |        |         | CAD4TB<br>Easy DR<br>OneStopTB Clinic | <a href="https://www.challengeTB.org/publications/Challenge_TB_Mobile_Care_How_To.pdf">https://www.challengeTB.org/publications/Challenge_TB_Mobile_Care_How_To.pdf</a>   |
| 2017                         | Global investments in Tuberculosis research and development: past, present and future.  | World Health Organization - Policy Paper for the first WHO Global Ministerial Conference on Ending Tuberculosis in the Sustainable | Automated imaging detection                             |        |         | CAD4TB                                | <a href="https://apps.who.int/iris/bitstream/handle/10665/259412/9789241513326-eng.pdf;jsessionid=7E0F217142B74E2DDE438FE6FB9AD925?sequence=1">https://apps.who.int/iris/bitstream/handle/10665/259412/9789241513326-eng.pdf;jsessionid=7E0F217142B74E2DDE438FE6FB9AD925?sequence=1</a>                                       |
| 2015                         | Chest Radiography in Tuberculosis Detection - Summary of Current WHO Recommendations and Guidance on Programmatic Approaches        | World Health Organization  | TB diagnostics pipeline                                 |        |         | CAD4TB                                | <a href="https://apps.who.int/iris/bitstream/handle/10665/252424/9789241511506-eng.pdf?sequence=1">https://apps.who.int/iris/bitstream/handle/10665/252424/9789241511506-eng.pdf?sequence=1</a>   |
| 2015                         | WHO Compendium of Innovative Health Technologies for Low-Resource Settings  | World Health Organization - Compendium of Innovative Technologies  |   |        |         | CAD4TB                                | <a href="https://www.who.int/publications/i/item/9789241509992">https://www.who.int/publications/i/item/9789241509992</a>   |
| 2014                         | Tuberculosis - Diagnostics Technology and Market Landscape  | UNITAID / World Health Organization  | TB diagnostics technology landscape                     |        |         | CAD4TB<br>EasyPortable                | <a href="http://unitaid.org/assets/Tuberculosis_diagnostics_technology_and_market_landscape_4th_edition_Oct_2015.pdf">http://unitaid.org/assets/Tuberculosis_diagnostics_technology_and_market_landscape_4th_edition_Oct_2015.pdf</a>   |
| 2012                         | Digital Imaging Innovations for Early TB Case Detection   | StopTB Partnership / CheckTB   | Active case finding                                     |        |         | CAD4TB                                | <a href="https://stoptb.org/wg/new_diagnostics/assets/documents/F.vanDoren_CAD%20Digital%20X-ray.pdf">https://stoptb.org/wg/new_diagnostics/assets/documents/F.vanDoren_CAD%20Digital%20X-ray.pdf</a>   |

## Silicosis Publications

| Year | Title  | Journal / Publication               | Key Words | Region | Country      | Delft Solutions          | Link  |
|------|--|-------------------------------------|-----------|--------|--------------|--------------------------|---|
| 2022 | Accuracy of Computer-Aided Detection of Occupational Lung Disease: Silicosis and Pulmonary Tuberculosis in Ex-Miners from the South African Gold Mines | Int. J. Environ. Res. Public Health | Silicosis | Africa | South Africa | CAD4TB,<br>CAD4Silicosis | <a href="https://doi.org/10.3390/ijerph191912402">https://doi.org/10.3390/ijerph191912402</a> |

| Year | Title   | Journal / Publication                        | Key Words | Region | Country      | Delft's Solution | Link  |
|------|---|--|-----------|--------|--------------|------------------|---|
| 2020 | Computer-Aided Detection for Tuberculosis and Silicosis in Chest Radiographs of Gold Miners of South Africa | International Journal of TB and Lung Disease | Silicosis | Africa | South Africa | CAD4TB           | <a href="https://doi.org/10.5588/ijtld.19.0624">https://doi.org/10.5588/ijtld.19.0624</a> |