

APPUNTI DI METODO

Controllo di qualità tecnica sui radiogrammi del torace effettuati per la sorveglianza sanitaria dei lavoratori esposti al rischio di pneumoconiosi: proposta di un metodo di *screening* qualitativo

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KEY WORDS

Chest radiography; quality control; pneumoconiosis

SUMMARY

«Technical quality control of chest radiographs performed for purpose of health control of workers exposed to pneumoconiosis risk: proposal of a qualitative screening method». Background: *The necessity of a qualitative screening has arisen from the fact that good technical quality is of fundamental importance for evaluating initial pneumoconiosis, for reducing inter- and intra-reader variability, for effective secondary prevention and for forensic medicine purposes.* Objectives: *The authors report experience in use of a method to evaluate the quality of chest radiographs performed in health surveillance programs for workers at risk for development of pneumoconiosis.* Methods: *747 postero-anterior chest radiographs concerning employees of 21 ceramic factories in the Province of Viterbo were examined. A standardized pattern was created for this evaluation. The pattern considers the main factors that can influence the quality of chest radiographs and assigns points for each of them. That factors are: 1) reproduced image of the lung's vascular structure, chiefly in the peripheral portions; 2) reproduced image of heart border, aorta, diaphragm; 3) deep inspiration; 4) symmetric image of the chest; 5) position of the scapulae; 6) visualization of the costal-phrenic angles; 7) technical impairments.* Results: *The application of the method revealed that half of the chest radiographs examined had poor image quality for a suitable reading, in conformity with the ILO 1980 guidelines. The critical points are poor visualization of the lung's vascular structure due to overexposure or underexposure, technical impairments, non-correct scapulae position.* Conclusions: *The authors believe that the suggested method can be a useful instrument for self-testing the quality of chest radiographs performed in radiology centers and for the National Health Service to test the quality of chest radiographs performed in health surveillance programs.*

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