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ASSESSING WORKERS AT RISK OF SILICOSIS: DEVELOPMENT OF AN INNOVATIVE OCCUPATIONAL TOOL

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Introduction:

There has been an epidemic of silicosis in the artificial stone benchtop industry in Australia, which has necessitated a rapid, innovative medical response. Effective screening requires accurate collection of occupational, clinical and psychosocial data, from large numbers of workers, many of whom do not speak English as their first language.

Aim:

To develop an electronic data capture tool (EDCT) with a focus on patient experience, assessing comprehensibility and ease-of-use.

Methods:

Occupational history questions were developed with input from an occupational hygienist, and refined after consultation and review of patient responses. An EDCT was developed suitable for collecting data directly from patients and physicians.

Results:

Using an iterative process, the EDCT has been refined linguistically and images of workplace ventilation and respirators have been added to prompt patients to select the type used in their workplace. The patient completes their occupational data online prior to attendance at clinic and the physician enters further data during the clinic about results of exposure assessment, radiology, spirometry, and pathology. In the first 18 months of the clinic, 470 patients were assessed using the EDCT.

Discussion:

A qualitative study to incorporate patient feedback on usability, comprehension, and ease-of-use is currently underway. Further development will include translation into other languages and longitudinal modules. This EDCT can be readily adopted by other teams needing to undertake screening of workers for silicosis and potentially other occupational lung diseases.

Conclusion:

We describe the successful development of an EDCT for assessment of silica-exposed workers.