

California improves reporting on silicosis

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Receiving silicosis cases via electronic case reporting (eCR) has improved silicosis reporting in California. Silicosis is a progressive, incurable, fibrotic occupational lung disease caused by inhalation of respirable crystalline silica dust in industries such as construction, quarrying, countertop fabrication, and coal mining.

The “What”

Silicosis is often underreported in California and timely identification of cases is critical for public health response to understand where workers are at risk and protect worker health. The California Reportable Disease Information Exchange (CalREDIE) collaborated with the Occupational Health Branch (OHB) within the California Department of Public Health (CDPH) to author silicosis in Reportable Conditions Knowledge Management System (RCKMS) in December 2022. This was the first non-communicable disease the CalREDIE eCR Program had authored and prepared for processing.

The criteria set in RCKMS to identify a reportable case of silicosis for California are based on “silicosis or pneumoconiosis due to dust containing silica (as a diagnosis or active problem)” and confirmed lab results for “Histopathology of lung tissue with interpretation consistent with silicosis or pneumoconiosis due to dust containing silica.”

In order to facilitate routing of the electronic initial case report (eICR) messages to the appropriate program, CDPH utilized Rhapsody, an integration engine, to create a data flow process that would identify the disease condition code, or SNOMED, on the eICR message and if the SNOMED code for silicosis was found, that message would be automatically siphoned from the Rhapsody route and sent directly to a designated secure

file location. The eICR and HTML files for silicosis are sent to a secure file where only authorized OHB staff may access and review the documents for cases under their purview.

The “So What”

Between December 2022 and October 2023, CDPH received eICRs including silicosis for 63 individuals. **73% of reported individuals were newly identified and not found through other data sources including hospital discharge and emergency department data**, local health department tuberculosis controllers, and direct referral from health care providers and others. To date, of the 54 cases where medical records could be reviewed, 30 (56%) cases have been confirmed as silicosis and another 16 (30%) have been classified as probable cases.

The “Now What”

eCR has proven to be a valuable source of reporting for silicosis. CDPH is encouraging participating health care organizations to adopt eCR trigger criteria for all reportable conditions, including silicosis. When eCR has more widespread adoption across California healthcare organizations, this could reduce health care provider reporting burden, consolidate how silicosis is reported, and potentially become the dominant mechanism for silicosis reporting. The success of silicosis case identification also highlights the potential utility of using eCR for other non-infectious condition reporting.



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