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| **Early detection of occupational lung disease through ensuring quality spirometry under the coal mine workers' health scheme** |
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| **Introduction:** Following recommendations of theMonash review (2016), in 2021 Resources Safety and Health Queensland (RSHQ) conducted an audit of 80 medical practices (practices). These practices were approved by RSHQ to perform spirometry under the Queensland Coal Mine Workers’ Health Scheme (CMWHS) against the 2017 TSANZ Standards for Delivery of Spirometry for Coal Mine Workers (Standards). Of 3338 reports audited, 13% had quality issues (C-grade, or poorer quality). This was a significant improvement from 40% identified by the Monash review. In 2022, the Standards were updated to the 2019 ATS/ERS spirometry guidelines. This project involved a further audit against the updated Standards.  **Aim:** To improve the quality of spirometry under the CMWHS by executing a project involving a targeted engagement strategy and risk-based, data-driven audit activities.  **Method**: A 4-phase audit strategy assessed spirometry reports (Phase 1 and 2), reviewed required documentation (Phase 3), and used a risk-based framework to identify practices for on-site inspection (Phase 4). Developed an engagement strategy to share preliminary findings and provide education on meeting Standards requirements.  **Results:** 5373 spirometry reports completed between 1 April and 30 June 2023 were assessed from 143 practices. 14% (n=752) were C-grade or poorer quality, 18.8% (n=1010) had <3 acceptable tests, 84.4% (n=4535) and 87.4% (n=4696) did not report weight and height to one decimal, respectively. 6.5% (n=350) had no operator comments. Phase 3 identified 21.0% (n=30) practices did not perform non-biological or biological quality control. 40.5% (n=58) had an outdated or commercially provided spirometry procedure manual.  **Conclusion:** After completing Phases 1 and 2, it was established spirometry quality remained generally unchanged following the 2021 audit. However, at the conclusion of all engagement activities, a further audit of spirometry reports will occur to determine if this project has achieved its aim of improving spirometry quality further.  **Key Words:** spirometry, RSHQ |