

Isolation bed days reduced by implementation of centralized rapid diagnostics for influenza virus

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Background

The yearly influenza epidemic is a logistic challenge in hospitals with insufficient possibilities to isolate patients in single rooms.

To reduce isolation bed days, we aimed at reducing time from sampling to availability of test results of influenza without compromising quality of the analysis.

Materials/methods

From January 2nd to May 31st 2018, departments at the 1000 bed University Hospital situated in Odense and Svendborg, 45 kilometres apart, had the possibility to request a rapid PCR test for influenza.

Swabs from upper airways were analysed for influenza A and B virus on Cobas Liat instruments (Roche) at the Department of Clinical Microbiology (Odense) or at the Department of Clinical Biochemistry (Svendborg).

At both locations, the Department of Clinical Microbiology purchased instruments and test materials, trained laboratory technicians, and took responsibility for verification and external quality assessment according to current laboratory standards. In Svendborg, this was done in collaboration with the Department of Clinical Biochemistry.

All instruments were connected to the laboratory information system of the Department of Clinical Microbiology, thereby automatically transferring results to patient records and to national surveillance.



Conclusion

By implementing rapid diagnostics for influenza in hospital laboratories, quality of results can be ensured, and isolation bed days markedly reduced.

Results

The analysis achieved accreditation by DS/EN ISO 15189 in both laboratories.

Average time from sampling to the report was available in the patient record was 2.5 hours compared to 33.8 hours for the conventional influenza diagnostics.

2,968 (73 %) of 4,086 hospitalised patients had a negative result in the influenza rapid test.

Isolation bed days were thus potentially reduced by 31.3 hours (93 %) for 2,968 patients, corresponding to 92,898 hours or 3,871 days in total.

This improves patient safety and facilitates patient care in the clinical departments.

Influenza test results 2017 and 2018

