



BACKGROUND

Detection and management of Nosocomial Outbreaks (NO) is a challenge for countries worldwide, mainly at governmental scope.

PURPOSE AND HYPOTHESIS

To describe governmental surveillance systems for NO.

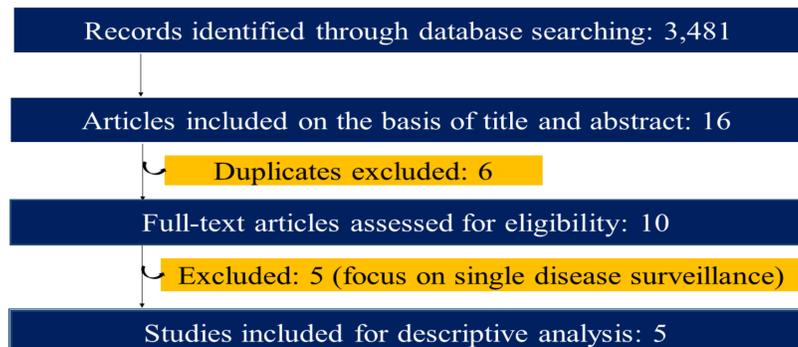
MATERIALS AND METHODS

- Systematic review carried out on PubMed, Embase, and the Latin American and Caribbean Health Sciences Literature database.
- Studies included: published from Jan 2007 to June 2017 describing governmental surveillance of NO.
- Search for the components of surveillance: NO definition, methods for detection and report, types of NO of interest.

RESULTS

Five papers were included (Figure 1).

Figure 1. Flow diagram of study selection



France, Germany, Norway, England and New York State - USA (NYS) established a mandatory reporting for NO. Germany uses a broad NO definition (Table 1)

Table 1. Nosocomial outbreak definition by country

Country	Outbreak definition
France	Rare/severe infections, a contaminated device/product or practice failure; infections leading to death; airborne/waterborne infections; reportable diseases.
NYS	Increased incidence of any infectious disease; foodborne outbreaks; infections associated with contaminated substances/commercial products/medical devices; reportable diseases; <i>S. aureus</i> (vancomycin resistant); procedures resulting in infections and/or hospital admissions; closure of a unit or service due to infections.
Germany	≥ 2 epidemiologically linked nosocomial infections.
England	≥ 2 cases linked in time or place, or a rate of infection that was higher than expected compared with the usual background rate, a single case for certain rare diseases.
Norway	A number of cases of an infectious disease which exceeds the expected level within a given time and area, or > 2 cases of the same infectious diseases where a common source is suspected.

- A timeframe for reporting an NO is defined in Norway, England and NYS (Table 2).
- Germany and Norway use laboratory results as a trigger for detecting NO, and England uses statistical analysis of regular reports of nosocomial infection rates.
- The responsibility for NO reports is attributed to healthcare facilities (France and Norway), healthcare workers (Germany) or infection control professionals (NYS and England).
- All countries use electronic systems for reporting, except France.
- Follow up reports are required in Germany, England and Norway (Table 2).

Table 2. Notification process for nosocomial outbreaks

Country	How to report	Time frame for reporting	Follow up reports
France	Paper form	NI	NI
NYS	Telephone, fax or Electronic system	24h	NI
Germany	Electronic system	NI	Partial and final
England	Electronic system	Prompt	Final
Norway	Electronic system or telephone*	Prompt	Partial

* Immediately if the outbreak is severe. Note. NI: Not informed.

CONCLUSIONS

There is high variability among countries regarding governmental NO surveillance systems. This may hinder opportune inter-country communication concerning NO of potential international public health relevance.

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