

From Point Prevalence Surveys to Continuous Quality Improvement

in a Teaching Hospital In Belgium

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Introduction

In Belgium and in the other European countries, the emergence of antimicrobial stewardship team ensures a controlled use of antibiotics, which is the key strategy against development of resistance to antimicrobials.

In our hospital, the results of our previous point prevalence studies have identified a number of areas of good practice and some areas for improvement. One of them is the surveillance of records in the computerized medical note.

The indication for an antimicrobial agent is often not clear or easy to find in the medical notes neither the intended stop date/duration, and this makes monitoring for appropriateness by other clinicians and health professionals difficult.

Objectives

Using an adapted point prevalence survey, we investigated whether the clinical indication, the antibiotics and the duration or review date are specified in the computerized medical notes and whether an ID physician is involved in the antimicrobial decision.

Methods

The Teaching Hospital in Liège is a 625-bed hospital in Belgium with all the major specialties present and without electronic prescription system.

Between May 2012 and February 2013, we identified one day per month all the patients that used one or more antibiotics in every ward.

The patients excluded were patients undergoing same day treatment or surgery, patients seen at outpatient department, patients in the emergency room and dialysis patients (outpatients).

After the data collection in the wards, we observed for each patient with antibiotic treatment the recording of the reasons for starting antibiotics, the recording of the antibiotic prescription and starting from July, the recording of a stop date or review date for the antibiotic prescription in the computerized medical note.

We also checked if an infectious disease (ID) physician was consulted.

Results

- Between May 2012 and February 2013, ten surveys were performed, and a total of 5171 patients' prescription charts were reviewed.
- Of those 5171 hospitalized patients, 1439 (28%) were receiving one or more antibiotics, most of them (82%) for the treatment of infection.
- The prevalence of using one or more antibiotics was consistent over time, and no significant trend was observed.
- We reviewed the computerized medical notes for 1179 patients receiving antibiotics for an infection.

- Overall, 82% of the patients had a documented indication for the antibiotic in the medical notes. 87% had the recording of the antibiotic prescription and only 31% had a duration or a review date recorded.
- Figure 1 highlights that the documentation of indication and the documentation of the antibiotics in the medical records has remained relatively constant. However, the duration or review date was not routinely mentioned yet in the medical notes.
- On average, an ID physician was involved in 28% of the prescriptions (Figure 2).

Figure 1: % Compliance

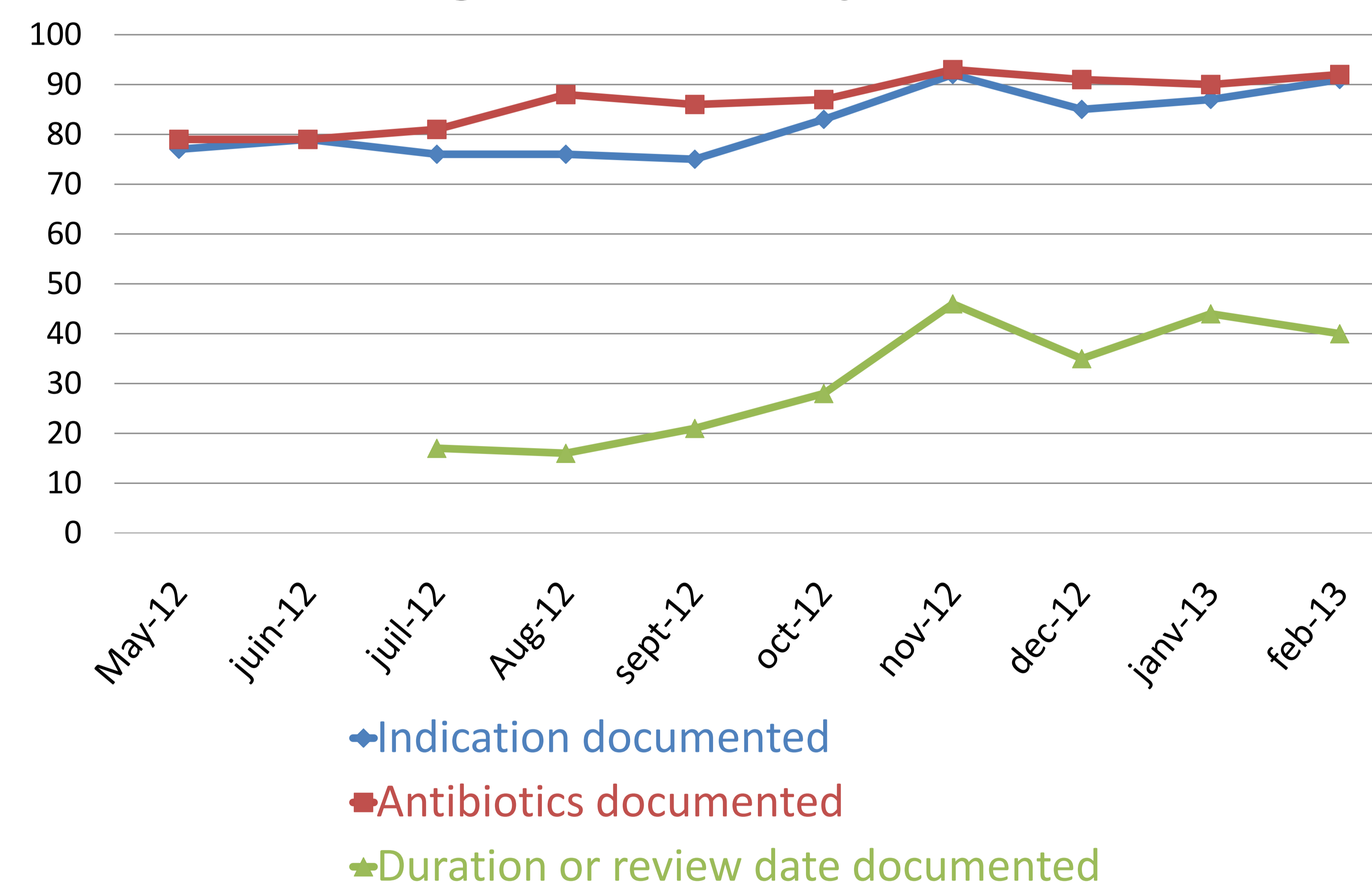
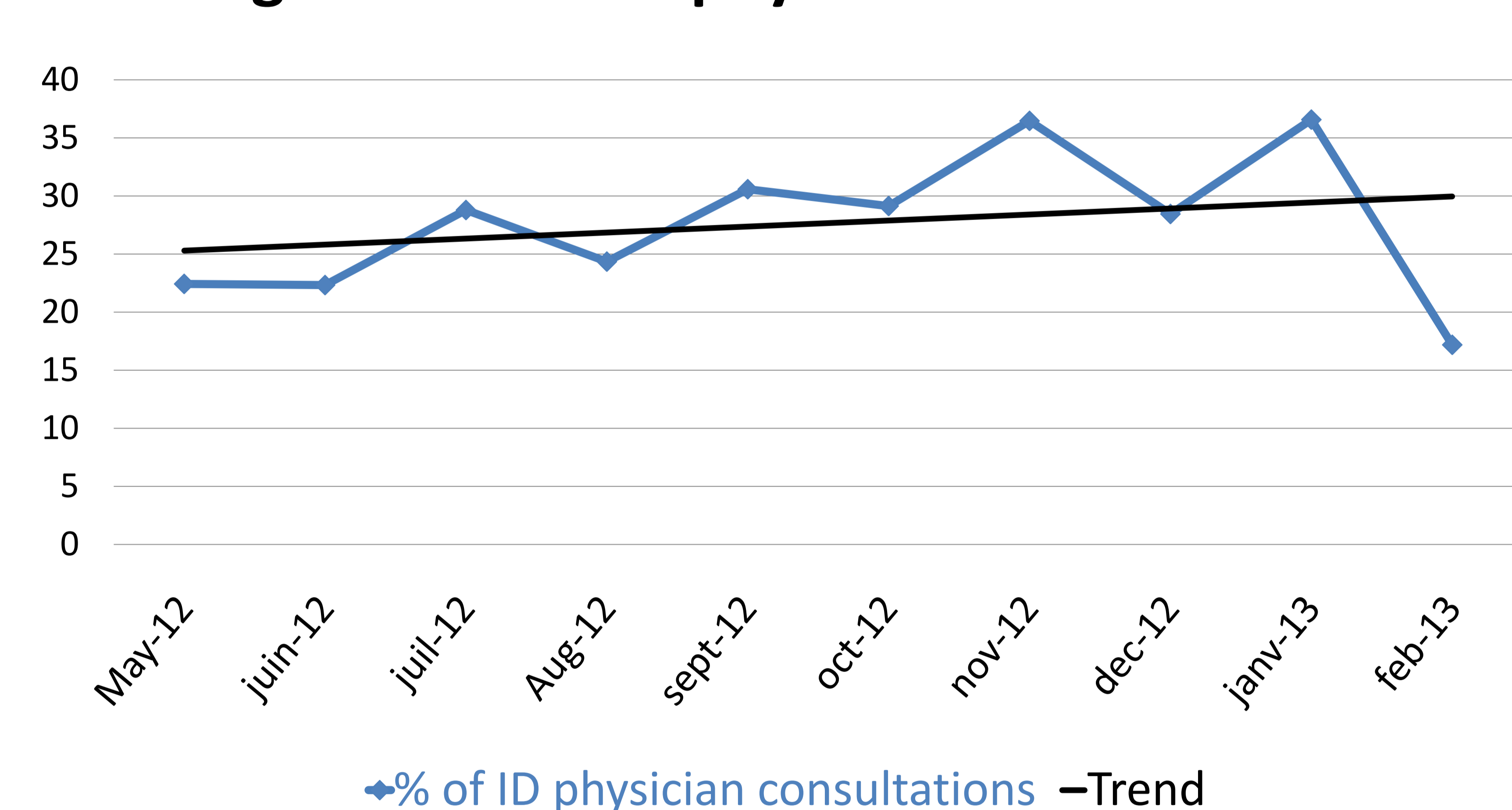


Figure 2: % of ID physician consultations



Discussion/Conclusion

Point prevalence survey is an easy and practical method to monitor the antimicrobial prescribing patterns and to identify areas for improvement.

To support prudent antibiotic prescribing and to facilitate the communication between healthcare team, the antibiotic and its indication should be documented as well as the duration or the review date.

In our hospital, the recording of the indication seems fairly satisfying but the objective is to reach 95% as it is the case in foreign institutions¹⁻². It is interesting to notice that is not only due to the ID physicians since they were contacted only in one third of the cases.

Nevertheless, antibiotic prescribing without documentation of a duration or review date is common and should be improved in the future with specific actions.

References

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