Antibiotic therapy reassessment and its documentation: can virtual tools improve practices?

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The documentation of 48-72 hours antibiotic therapy reassessment is one of the evaluation criteria of antibiotics good use of health facilities. This item is only found in 30 to 50% of the patient’s medical records, in the literature.

Objectives

To assess the documentation at 48-72-hours of the antibiotic therapy reassessment in the medical records

To assess the impact of antibiotic (ATB) awareness with virtual tools.

Background

Material and methods

Corrective actions

- Prescription software
  - Informative pop-up
  - Reminding 48-72h reassessment in the medical record

- Feedback
  - Results presented to units
  - Exchange with prescribers

Formation: E-learning

- Validated by hospital ATB commission
- 3 clinical cases
- Emphasizing on reassessment and its documentation

Evaluation and impact

Second audit to assess the effects of actions.

Results

Compliance rate of the 8 audit grid items, before and after corrective actions (n = 2x200)

- Observational, retrospective, and monocentric
- Inclusion criteria: Adult, > 48h curative ATB treatment
- Audit grid by French Infectious Pathology Society
- 10 various units - 20 patient’s records /unit

N = 200

Antibiotherapy reassessment’s documentation in patient’s records

59% (p < 0.05)

5 months of corrective actions

Microbiological tests results

- Expective duration
- Decision on the ATB continuation

Antibiotherapy reassessment

Clinical and paraclinical criteria

Microbiological tests interpretation

N = 200

Antibiotherapy reassessment’s documentation in patient’s records

N = 200

Most prescribed ATB and reassessment rate (RR) per DCI (n = 233)

<table>
<thead>
<tr>
<th>Top 3 prescribed ATB</th>
<th>RR before</th>
<th>RR after</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amoxicillin/clav</td>
<td>31.3%</td>
<td>62.9%</td>
</tr>
<tr>
<td>Levofloxacin</td>
<td>53.3%</td>
<td>76.1%</td>
</tr>
<tr>
<td>Amoxicillin</td>
<td>58.8%</td>
<td>77.8%</td>
</tr>
</tbody>
</table>

Reassessment consequence after corrective actions (n = 118-148)

Pursuit

File number

Before

After

Conclusion

E-learning broadcasting and physician’s awareness allowed a significant increase documentation of antibiotics reassessment between the two reporting periods. However, improvement of practice must be coupled with a long-term awareness to get a sustained impact of actions.

25th Congress of the EAHP - 25-27 March 2020, Sweden