Drug shortages, widely reported by healthcare professionals and patients over recent years, are an increasing concern for hospital pharmacists.

BACKGROUND

Since 2013, the hospital pharmacist has identified the medicines shortages and determined the time of unavailability which has resulted in the implementation of a method for managing medicine supply issues.

MATERIALS AND METHODS

The aim is to verify the impact of a large number of long-term medicines shortages on the daily work of a hospital pharmacist, in a university hospital (838 beds, 1500 medicines).

MATERIALS

• Spreadsheet = tool for traceability of all medicines shortages and alternatives

• Information for healthcare professionals

PHARMA STOCK

Information about medicines shortages

Collected by e-mail to prescribers and chief nurses, also available on intranet

METHODS

• Collecting information
  - Daily investigation of medicines shortages notified unexpectedly (back-order of one or more medicines from an order, contact by or to the pharmaceutical firm or wholesaler, information on the delivery note, ...) and confirmation of data obtainable on www.afmps.be and www.cbip.be if needed.
  - Weekly analysis of internal data of order backlog (not received at 14 days).

• Analysis of the spreadsheet of medicines shortages
  - Daily update: adding new medicines shortages, modifying the eventual end-of-stock dates and removing completed medicines shortages.
  - Weekly counting the remaining stock of medicines shortages and alternatives: insert information about orders and chosen alternatives.

RESULTS

• Number of medicines shortages over 5 years illustrated in the graph below.
• Duration of drug shortages classified into minor (≤15 days), moderate (15 to 60 days) and major (≥60 days).

The number of drug shortages with major duration is increasing over those years (37 in 2013, 53 in 2018).

These results require to develop an improvement strategy:

• Drafting a decision-making (algorithm: Medicines shortages management) supporting the choice of alternative
  - One alternative for 53% of medicines shortages, two for 7% and three for 1%.
• A spreadsheet including the results can easily be consulted to be informed about the proposed alternative.
• Team building: a team of hospital pharmacists, pharmacy technicians and administrative personnel has been deployed
  - The complexity of the management of this continuous activity requires a backup hospital pharmacist.
• A communication platform to secure supply chain potentially at risk of alternative treatment is developed and the multidisciplinary team is working in collaboration with the Medico-Pharmaceutical Committee to support clear communication to the other healthcare professionals.

CONCLUSION

The medicines shortages management is a new activity for the hospital pharmacist.

The implementation of a management structure (putting in place a team of specialists, an update of a spreadsheet gathering all the information, drawing a decision algorithm and developing a communication platform) for medicine supply issues, lead by a hospital pharmacist, has become indispensable to deal with the significant number and duration of medicines shortages nowadays.

REFERENCES

Time spent by Belgian hospital pharmacists on supply disruptions and drug shortages: an exploratory study, E. De Weerdt and al., March 2017

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