Background Thermo-sensitive drugs must be stored overall the circuit, from manufacture to administration for the patient, at 2°C–8°C. The hospital mission is to ensure patient safety and quality of care. Evaluation and improvement of the thermo-sensitive drug management process are essential in preventing and limiting iatrogenic events.

Purpose The present study aimed to assess the risk of the thermo-sensitive drug management process according to a proactive analysis: failure mode and effects analysis method (FMEA).

Material and methods A multidisciplinary study group was assembled and a process diagram was drafted, illustrating all steps of the cold chain. Failure modes that could occur were identified and classified according to their risk priority score (RPS) determined on the basis of the likelihood of occurrence, the severity of the potential effect and the probability of detection. The failures’ causes were closely examined by establishing Ishikawa diagrams in order to propose corrective and preventive actions.

Results The evaluation process detected 42 potential failures. The frequency of failure modes were as follow: 24% in drug storage at the depot step, 21.4% in drug storage in the care units step and 19% in drug storage in the different units of the pharmacy step. These three steps were considered the most critical. Among the most critical failure modes was the failure of the refrigerator with a RPS equal to 16, the non-compliance of the cold chain during transport with a RPS equal to 60 and the non-control of the temperature at receipt of the thermo-sensitive drug. This last mode of failure seems to be the most critical, with a RPS equal to 80. Preventive measures such as the control of temperature at the drug reception and immediate storage in a freezer box have been proposed to get rid of the most critical failures.

Conclusion FMEA was useful to help understand the cold chain process, detecting possible failures and prioritising remedial interventions. The systematic use of proactive risk analysis is needed for continuous safety improvement of the thermo-sensitive drug management process.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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No conflict of interest.

IMPACT OF ANTICHOLINERGIC BURDEN, QUANTIFIED BY ANTICHOLINERGIC RISK SCALES, ON COGNITIVE AND FUNCTIONAL STATUS AND FALLS IN PATIENTS WITH MULTIMORBIDITY: A PRELIMINARY STUDY

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Background Taking multiple drugs with anticholinergic risk (AR) can adversely impact cognition and function. There are scales that rank the anticholinergic activity by the mean of the anticholinergic burden (AB) of the treatment, which is the sum of the score for each anticholinergic drug.

Purpose This study investigated the influence of AB on cognition and function in patients with multimorbidity over 65 years.

Material and methods This was an observational and retrospective pilot study of patients with multimorbidity over 65 years. Changes in cognitive and functional performances, assessed using the Pfeiffer and Barthel test, respectively, between 3–15 months, were collected. AB was assessed with the anticholinergic burden calculator (http://www.anticholinergicsscales.es/), which contains 10 scales. Included patients had to be treated with at least one drug included in at least one scale for at least half of the period and patients with severe dementia and/or Alzheimer’s disease were excluded.

Results One-hundred and seventy-seven patients were included in preliminary analysis (86±7 years, 62% females). The average number of drugs taken per patient was 10±2. The average number of drugs with AB was 4±2. We identified 77 and 41 patients with a change in cognitive disorder (CD) (44%) and functional disorder (FD) (23%), respectively, and 23 patients (13%) suffered falls.

The patients identified with high AB according to each scale were: 96 patients on the ABC scale (54%), 57 on DBI (32%), 45 on DURAN (25%), 35 on AAS (18%), 28 on AL (16%), 20 on CrAS (16%), 20 on CHEW (11%), 19 on AAS (11%) and 10 on ARS (6%).

Fifty-nine patients (77%) with a change in CD and 31 (76%) patients with a change in FD, had high AB on at least one scale. Eighteen (78%) of patients with falls had high AB on at least one scale.

Conclusion We found a high percentage of patients with multimorbidity over 65 years with deterioration of cognitive and functional function when they have taken anticholinergic drugs. Moreover, there are wide differences among the scales’ scores. It is necessary for a more exhaustive analysis of the results to determine which scales correlate better with DC and DF in these patients.

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INTEREST IN MEDICATION RECONCILIATION AND ESTABLISHMENT OF A PRIORITISATION SCORE IN A VASCULAR SURGERY DEPARTMENT

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Background Patients in the vascular surgery department (VSD) are under several medications, with a high risk of medication error. Medication reconciliation (MR) could help to prevent the risk of a drug iatrogenic issue. Checking the whole admission prescriptions is difficult for pharmacists because of high turnover in the surgery department. Patients with a high-risk error in admission prescription had to be identified.

Purpose The aim of this study was to evaluate the interest of MR in a VSD and to identify a prioritisation score to target patients who should benefit from MR.

Material and methods This study was conducted between February and September 2018. Several sources were collected to identify a list of patients’ current medications, by one pharmacist. Comparing this list with hospital prescriptions allowed the identification of divergences. Three classes of divergences were