2SPD-017 RISK IDENTIFICATION IN ANTIDOTE AND EMERGENCY PREPAREDNESS

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10.1136/ejhpharm-2024-eahp.54

Background and Importance Globally, antidote preparedness has been identified as a major challenge (Antoniello et al, 2023). The healthcare system must be able to ensure antidote availability and effective management for both individual poison cases and for mass casualties, whilst weighing in the financial burden. This study recognised a gap in literature on the local situation of emergency preparedness with regards to antidotes and the risks in local antidote availability and accessibility. Identification of risks is crucial for the development of risk management strategies to ensure no disruptions in the antidote supply chain.

Aim and Objectives The aim of this study was to identify risks in the availability and accessibility of antidotes in a small nation.

Material and Methods Vertical audits of eight antidotes (pralidoxime, atropine sulphate 600 mcg/ml injections, hydroxocobalamin kit, sodium thiosulphate, sodium nitrite, digoxin immune fab, activated charcoal and, acetylcysteine) were performed at the procurement unit and two acute general hospitals, to identify risks starting from the sourcing to the dispensing of antidotes for patient use. A clinical expert focus group was established for validation and prioritisation of identified risks.

Results Five of the antidotes were noted to have problematic sourcing due to restricted availability on the open market. Logistics and costs of antidotes had a major influence on antidote availability and accessibility. Other identified risks include inadequate stocking of antidotes, lack of periodic review of procurement specifications, delay of antidote release from quarantine due to regulatory barriers, insufficient training, lack of guidelines and national contingency plan, unreliable suppliers and bureaucratic procurement processes.

Conclusion and Relevance This is the first study of this nature to take place in this small nation. Findings indicate critical need for healthcare system optimisation in emergency preparedness. Risks associated with availability can be mitigated through the establishment of international cooperation agreements at European and global levels. The risks identified will be utilised in the development of guidelines and recommendations on the optimisation of emergency preparedness based on risk management principles.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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Conflict of Interest No conflict of interest.

2SPD-018 IMPACT OF INHALERS ON CO2 EMISSION IN A HEALTH AREA

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10.1136/ejhpharm-2024-eahp.55

Background and Importance There are several types of devices for inhaled therapy, being the most used ones: pressurised metered-dose inhalers (pMDIs), dry-powder inhalers (DPIs) and soft mist inhalers (SMIs). All the types have some environmental impact due to their effect on CO_2 emissions, although very low compared to total CO_2 emissions, pMDIs have proven to exert higher CO_2 emissions than DPIs and SMIs.

Aim and Objectives The main objective is to estimate the impact of pMDIs, DPIs and SMIs, prescribed for any indication, on CO_2 emissions in our health care area during 1 year.

Material and Methods Number of inhalers consumed in our health care area with a population of 550086 inhabitants during 2022 was extracted from the Pharmacy Benefit Management Data.

The inhalers' carbon footprint values were extracted from the publication Montoro et al. The estimated mean value of Kg CO_2-eq/year/pack was 16.69 for pMDIs, 1.02 for DPIs and 0.59 for SMIs.

Results Of the total amount of inhalers consumed during 2022, 39.21% were pMDIs, 54.47% were DPIs and only 6.33% were SMIs.

Considering the estimated correction value, the carbon footprint was 2297846 kg CO_2-eq for pMDIs (91.69% of the total carbon footprint of all the inhalers), 195104 kg CO_2-eq for DPIs (7.79%) and 13105 kg CO_2-eq for SMIs (0.52%).

Conclusion and Relevance The carbon footprint of the pMDIs represented more than 90% of the total carbon footprint of all the inhalers, even when consumption of pMDIs represented less than the 40%. This put in evidence the considerable higher environmental impact of pMDIs compared to DPIs.

However, this does not go in line with several societies and organisms which keep defending that efficacy, safety and patient suitability must continue to be the main factors when choosing a type of inhaler for each patient.

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The authors acknowledge the Pharmaceutical Benefit Management Service – SERGAS (Spain) for the data provided.

Conflict of Interest No conflict of interest.

2SPD-019 TOWARDS A SUSTAINABLE OPERATING ROOM: FEEDBACK ON ACTIONS CARRIED OUT AROUND MEDICAL DEVICES

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10.1136/ejhpharm-2024-eahp.56

Background and Importance Since 2022 within our healthcare establishment, a multi-professional think tank has been engaged in the implementation of a sustainable development approach with three objectives: reduction of the volume of waste, energy saving and fight against pollution in the operating room (OR).

Aim and Objectives Rationalise Medical Device (MD) references and move some defined as uncritical in terms of infectious