

GLASS AMPOULES AND DRUG FILTRATION: ¿HOW MUCH DO WE KNOW ABOUT IT?

GONZÁLEZ ANDRÉS D, AGÜI CALLEJAS AM, ITURGOYEN FUENTES DP, RANZ ORTEGA P,
 ARRIETA LOITEGUI M, GONZÁLEZ RODRÍGUEZ MI, POZAS DEL RÍO MT.

Niño Jesús Children's University Hospital, Madrid (Spain)
 danielgonzalezandres82@gmail.com

Abstract number: 3PC-002
 ATC Code: 3. Literature reviews

Background and importance



Glass ampoules (GA) have many advantages but many disadvantages too, like detachment of microscopic glass particles over the drug after the opening, that may cause phlebitis, embolism and other side effects during administration.

To prevent these problems, the use of filters it is recommended before drug administration. Nevertheless, they are priceless and incompatible with many drugs.

Aim and objectives



Identify commercialized ampoules drugs available in our pharmacy service (PS), check those contained in glass ampoules and bibliographic review of its compatibility with filters.

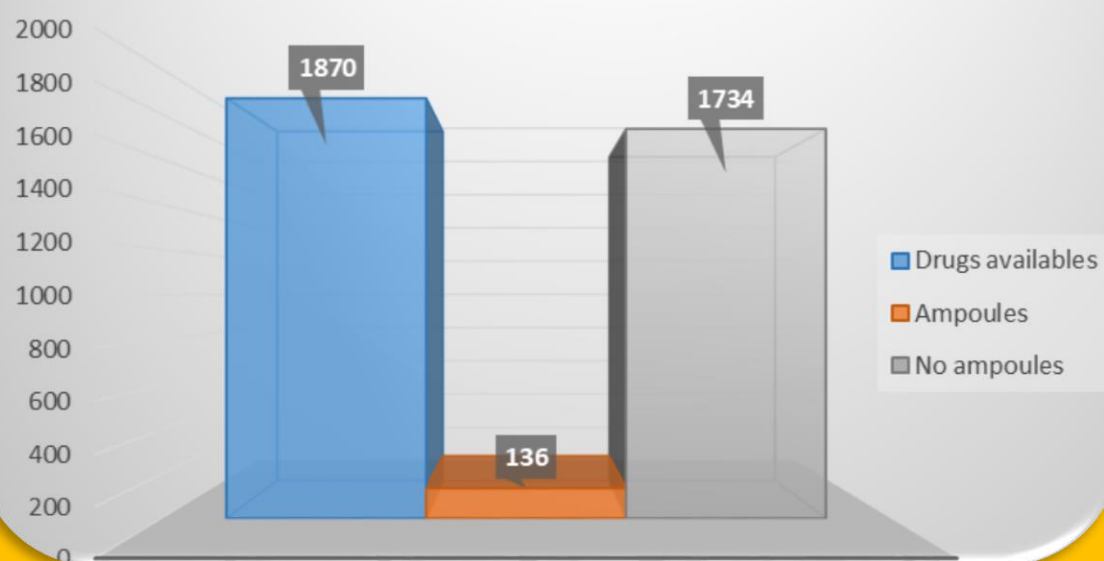
Materials and methods



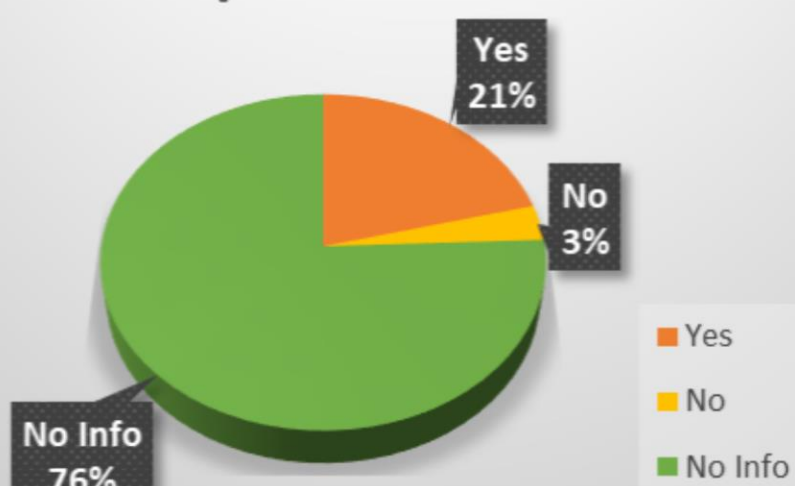
We used our informatic program Farmatools® to get a list of drugs contained in ampoules available in our PS. Then we verified physically the material they were made of. Finally, we did a bibliographic review of those drugs to check its compatibility with filters by using the key words "ampoule" and "filter" in Micromedex, drug's data sheets and Handbook on Injectable Drugs (17.^a ed.).

Results

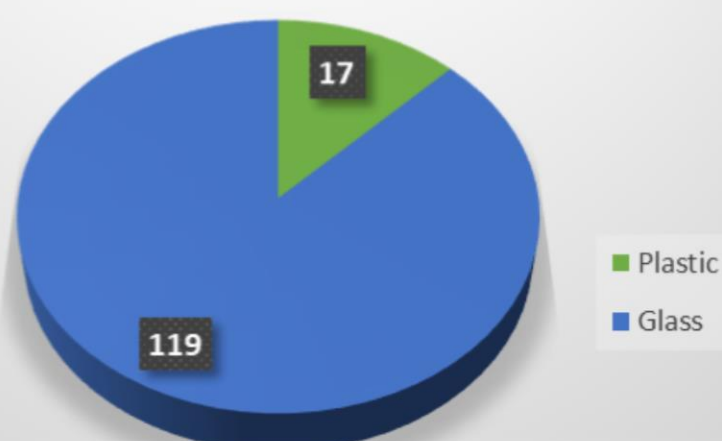
Distribution of drugs depending on whether they are in ampoules or not



Distribution of glass ampoules depending on whether the drug is compatible with filters



Distribution of the ampoules depending on the material they are made of



Conclusion and relevance

- Most of the drugs packaged in ampoules are made of glass.
- There is no evidence about its compatibility with filters, but in those which exists, the majority are compatible with filters.
- Despite the evidence about these problems related with opening GA, the information available about its compatibility is limited and more studies are needed.

References and/or acknowledgements:

- Joo GE, Sohng KY, Park MY. The effect of different methods of intravenous injection on glass particle contamination from ampoules. Springerplus. 2016 Jan 6;5:15.
- Cassista J, Payne-Gagnon J, Martel B, Gagnon MP. Applying Theory to Understand and Modify Nurse Intention to Adhere to Recommendations regarding the Use of Filter Needles: An Intervention Mapping Approach. Nurs Res Pract. 2014;2014:356153.
- Waller DG, George CF. Ampoules, infusions, and filters. Br Med J (Clin Res Ed). 1986 Mar 15;292(6522):714-5.