STABILITY OF INJECTABLE DRUGS IN INFUSION : 40 YEARS OF LITERATURE REVIEW.

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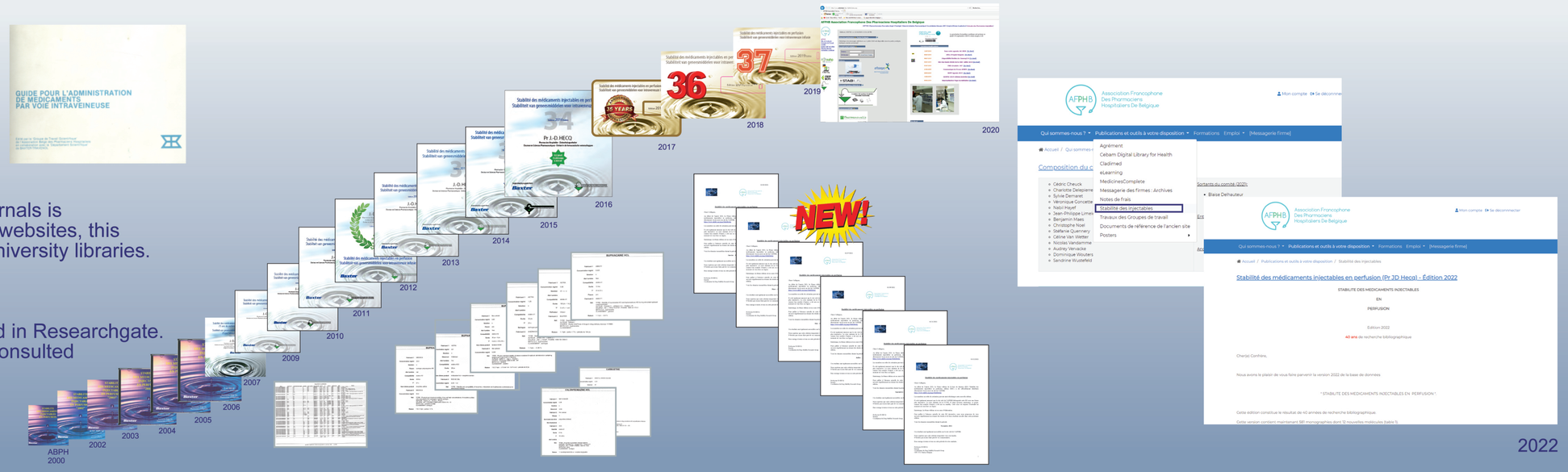
Background

Knowledge of stability of intravenous drugs (IVD) administered in hospital is important. Information is published in different scientific journals and not always easily findable.

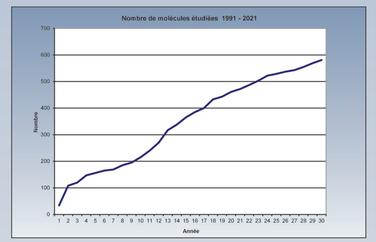


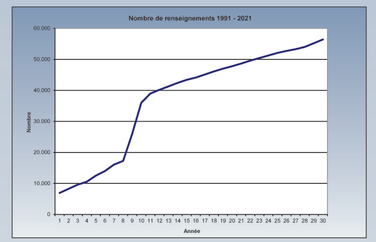
Material and method

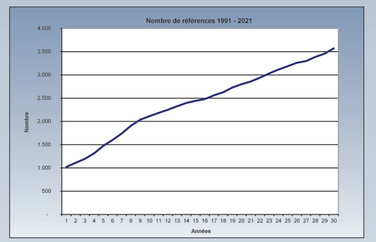
- The contents of 33 national and international journals is systematically reviewed, monthly, by visiting the websites, this method replacing gradually the consultation in university libraries.
- Pubmed is viewed weekly.
- Alerts are encoded in Google with keywords, and in Researchgate. Books and other electronic databases are also consulted regularly.
- In some cases, authors are contacted directly.

Results

- The 1st edition of a «Guide for the administration of drugs by infusion » was published in 1981.
- The stability, compatibilities and incompatibilities with iv solutions or other IVD was described for 20 IVD.
- A new edition was distributed in 1987 and followed by 3 up-to-date. In December 1991, was launched the 1st of eleven editions of a manual new entitled “Stability of injectable drugs in infusion”, who give only stability data. The number of reviewed drugs amounts to 195. The up-to-date contained more than 500 pages.
- In 2000, start the publication of a more practical CD-Rom, replaced by a USB key since 2017.
- Since 2020,
  - the database is hosted by the AFPHB website
  - a newsletter detailing the newly included studies was sent to members every 2 months
- The edition 2022 furnish 56.421 data on the stability and (in)compatibilities of 581 drugs alone or in binary, ternary or quaternary mixtures in different types of containers, based on 3.572 references. Interactions with containers and extractions of plasticizers are also mentioned. A review of the stability after microwave freeze-thaw treatment and in peritoneal dialysis solution supplements the review.







Conclusions

- The 2022 edition of the database is hosted on the AFPHB website. It is the result of 40 years of literature review and contributes to the knowledge of stability of IVD by Belgian hospital pharmacist and the quality of patient care.
- This databank may also help compounding units for the determination of validity of batch preparation of ready-to-use injections.

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Possible conflict of interest : nothing to disclose.

References : Hecq JD. Stabilité des médicaments injectables en perfusion. Edition 2022.