



Development of training video modules on aseptic techniques related to the preparation of hazardous and non-hazardous sterile products

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1 Introduction



- In 2011, the Association des pharmaciens des établissements de santé du Québec (A.P.E.S.) created the Groupe de travail sur les préparations stériles (GTPS), a professional working group of hospital pharmacists experts in sterile preparation compounding, to support hospital pharmacy departments in implementing standards in the preparation of sterile hazardous and non-hazardous medicines.
- The GTPS developed tools and policies and procedures (P&P) that comply with sterile and non-sterile compounding standards set by the Ordre des pharmaciens du Québec (OPQ), the pharmacy regulatory authority in Quebec^{1,2}.
- These resources serve as a common reference for training, standardisation of practices, and staff performance evaluation and are regularly updated to ensure their relevance and alignment with best practices.

2 Aims



- Improve the development of knowledge and skills regarding aseptic techniques and safe handling of drugs with innovative training videos.
- Promote rigorous staff training and maintaining safe practices to ensure the quality of sterile products and care provided.
- Harmonize the compounding processes and safe handling methods.

3 Method



- First phase:**
 - Literature review of standards, guides, and policies and procedures governing the preparation of hazardous and non-hazardous products.
 - Collection of real-world data through direct observation of aseptic techniques in various hospitals to compare and ultimately harmonise practices between pharmacy departments in accordance with OPQ compounding standards.
- Second phase:**
 - Development of educational content, including scriptwriting and filming preparation, through collaboration between GTPS members, students in biopharmaceutical sciences, and pharmacy technical assistants.
 - Creation and dissemination of educational video modules on sterile products through a dedicated microsite on sterile products and non-sterile compounded preparations in June 2024 and September 2025.

4 Results



- Following two 15-week filming and editing cycles, production of **91 training videos**: 44 videos on aseptic techniques for non-hazardous sterile products and 47 videos for hazardous sterile products^{3,4}.
- Fourfold increase in number of training video views from 206 consultations in 2024 → **839 consultations** in 2025.
- Popularity of the dedicated microsite in 2025: No. 1 among the A.P.E.S.'s microsites, with **4,124 visits**.
- As of February 2026, integration of training videos in the curricula of **nine colleges** and **four vocational training centres**.

Table I. Topics of training videos produced by the GTPS

Préparation de produits stériles dangereux [A.P.E.S., 2025]	Préparation de produits stériles non dangereux [A.P.E.S., 2024]
Hygiène, habillage et retrait de l'EPI PSD : Hygiène des mains, des avant-bras et séquence d'habillage en vue de la préparation de produits stériles PSD : Hygiène des mains, des avant-bras et séquence d'habillage en vue de l'entretien de l'ESB PSD : Hygiène des mains, des avant-bras et séquence d'habillage (allergie à la chlorhexidine) PSD : Enfilage des gants stériles PSD : Remplacement du masque à cartouches par le masque chirurgical avant la séance de préparation PSD : Remplacement du masque chirurgical par le masque à cartouches après la séance de travail en vue de l'entretien de l'ESB PSD : Retrait de l'EPI à la fin d'une séance de travail PSD : Retrait de l'EPI après l'entretien de l'ESB PSD : Vérification de l'étanchéité du masque à cartouches : essais en pression positive et négative PSD : Nettoyage quotidien du masque à cartouches PSD : Nettoyage mensuel du masque à cartouches	Hygiène et habillage PSND : Hygiène des mains et des avant-bras et séquence d'habillage PSND : Hygiène des mains et séquence d'habillage PSND : Hygiène des mains et des avant-bras et séquence d'habillage (allergie à la chlorhexidine) PSND : Enfilage des gants stériles

Full table
available online



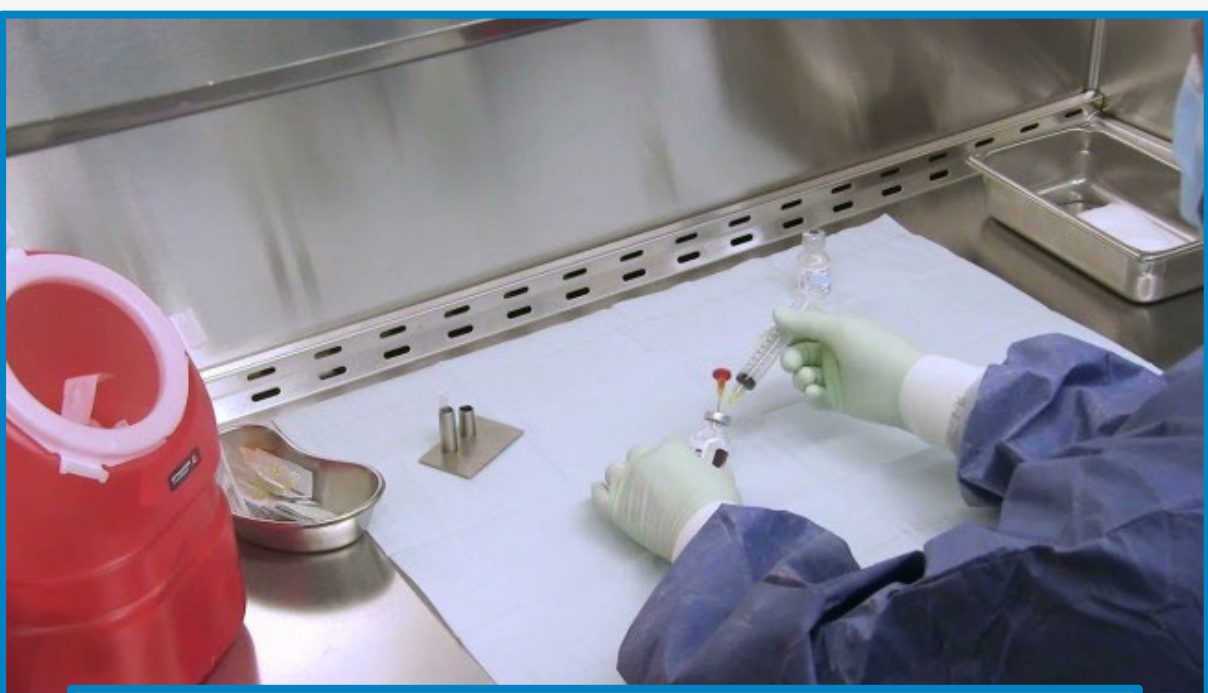
Figure 1. Selected examples of GTPS training videos



Hand and forearm hygiene and gowning



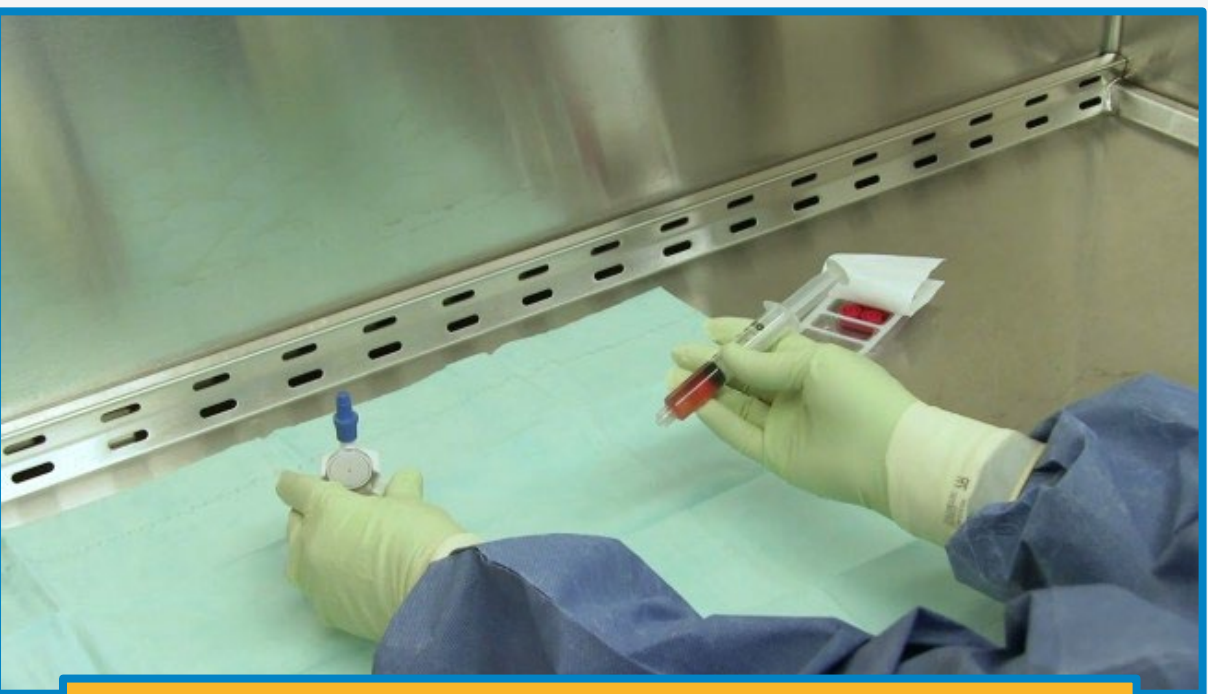
Material introduction



Powder reconstitution



Ophthalmic drops preparation

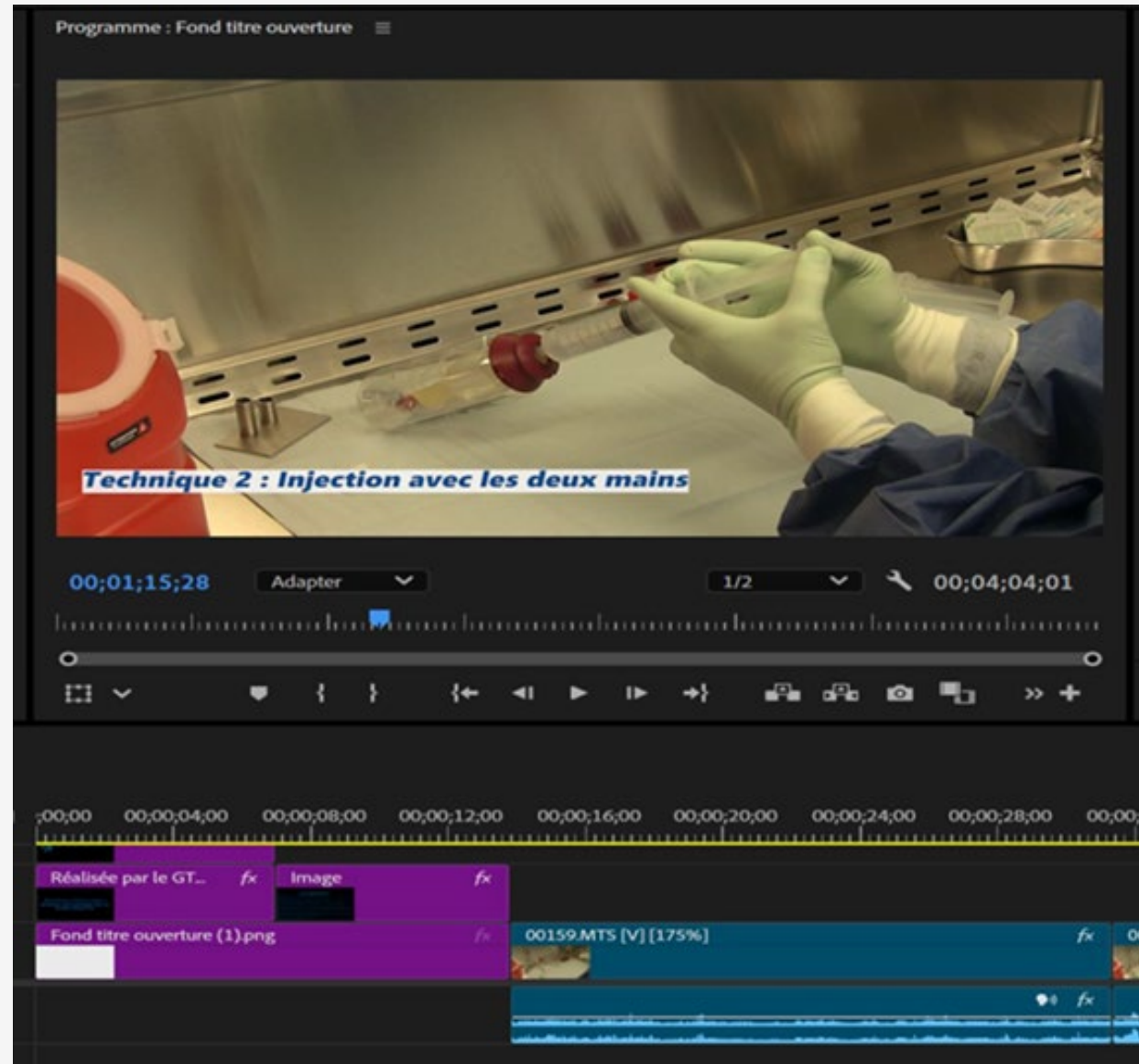


Hazardous drug spill management

Training videos
available online



Figure 2. Behind the scenes of video production



5 Conclusion



- Access to dynamic, high-quality educational tools, facilitating the development of essential aseptic techniques in preparing sterile hazardous and non-hazardous medicines.
- Contribution to compliance with current quality standards, thereby strengthening staff and patient safety.
- Access to videos made available to all A.P.E.S. members and to educational institutions, including colleges and schools offering pharmacy technician and assistant courses, thus contributing to knowledge dissemination and transfer.
- Potential development of a new series of videos for non-sterile preparations.

6 References

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7 Contact details and acknowledgements

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