



The QA and Technical Services Interest Group of the
Guild of Healthcare Pharmacists

Pharmaceutical Quality Assurance and Technical Services Symposium 2023

Thursday 28th and Friday 29th September 2023

International Convention Centre
Newport, Wales. NP18 1HQ



POSTER APPLICATION FORM

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Poster title	Syringe Integrity Testing of BD Amber Syringes with Commonly Used Syringe Caps
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Please submit details of abstract overleaf

Please note: all poster applications must be submitted by 18th August 2023

Please return your application to:
admin@pasg.co.uk
marking the subject as "Symposium Posters"

ABSTRACT

Please use this space to provide an abstract of your poster which must contain:

1. Syringe Integrity Testing of Becton Dickinson Amber Syringes with Commonly Used Syringe Caps
2. List of focal points (minimum of three and a maximum of four short sentences as bullet points which describe the essence of the abstract). There should be one sentence for the research question or objective, one sentence for the main results and one for the main conclusion. If necessary, a further bullet can be added
 - Novel syringe integrity testing for 50 mL amber PN syringes in combination with commonly used hubs (caps) was performed as an addendum to a regional project carried out in 2022. Testing was undertaken by Stockton QC
 - Syringe integrity testing of the amber syringes showed no failures when tested using the YCD method
 - This provides assurance BD amber syringes and the commonly used hubs (caps) provide a safe seal
3. Maximum of 600 words (including focal points but excluding abstract title & references)

Syringe integrity testing provides assurance syringe and hub (cap) combinations provide an adequate seal to prevent microbial ingress from the external environment into the syringe, leading to potentially contaminated products. Clearly, this is something aseptic preparation needs to avoid at all costs.

Following a recent recommendation from NICE, light protection is recommended for low volume parenteral nutrition products using a syringe as a final container (NICE quality standard QS205). Becton Dickinson amber PN syringes were identified as an appropriate final container for these products, offering suitable light protection. However, no syringe integrity testing has been carried out on this novel syringe.

Syringes were filled in an aseptic environment by an appropriately trained junior technician at LTHT in combination with 4 different commonly used hubs (caps) across NHS aseptic units. Stockton QC carried out the testing of the filled syringes using the YCD syringe integrity testing method (Pharmaceutical Quality Assurance Committee (2013), Protocols for the Integrity testing of Syringes, 2nd Edition).

Results showed there were no failures, providing assurance that the BD amber syringes and selected hubs (caps) provide adequate protection against microbial ingress.

4. Four sections using the following headings:

a. Introduction (including statement of objectives or research question)

Does the combination of commonly used caps and 50 mL amber BD syringes provide adequate protection from microbial ingress?

b. Methods

Microbiological Protocol for the Integrity Testing of Syringes, 2nd Edition, April 2013 (Yellow Cover) [Internet]. SPS - Specialist Pharmacy Service. SPS; 2013

c. Results

Four different hubs were tested in replicates of 20, giving 80 samples in total. No failures were observed.

d. Conclusions

No failures observed in the testing, providing assurance the tested syringe and hub combinations provide adequate protection against microbial ingress.

5. References

- Beaney A, Prof D. Quality Assurance of Aseptic Preparation Services: Standards Part A | Fifth edition [Internet]. 2016. Available from: <https://www.rpharms.com/Portals/0/RPS%20document%20library/Open%20access/Professional%20standards/Quality%20Assurance%20of%20Aseptic%20Preparation%20Services%20%28%20QAAPS%29/rps---qaaps-standards-document.pdf>
- Microbiological Protocol for the Integrity Testing of Syringes, 2nd Edition, April 2013 (Yellow Cover) [Internet]. SPS - Specialist Pharmacy Service. SPS; 2013 [cited 2022 Feb 4]. Available from: <https://www.sps.nhs.uk/articles/microbiological-protocol-for-the-integrity-testing-of-syringes/>
- National Institute for Health and Care Excellence (2022). Neonatal Parenteral Nutrition, Quality Standard 205. Available from: <https://www.nice.org.uk/guidance/qs205> (accessed 13th June 2023).

6. Maximum of 1 side of A4.