

TECHNICAL BULLETIN

From: Marketing CoE Chasseneuil

To: All affiliates

B. Braun Access Port Systems Celsite®

Question: Can DMSO and Taxol® be used with Celsite® ports and catheters?

To remind you what these are?

- **Paclitaxel (Taxol®)** is an intra venous chemotherapy agent indicated in ovarian cancer, breast cancer, lung cancer and Kaposi syndrome.
Paclitaxel may be infused over 3 to 24 hours (infusion concentration must be 0,3 to 1,2mg/l)
The solvent contains alcohol and castor oil.
- **DMSO (Dimethyl sulfoxide)** at 10% concentration is used as a preservative for cells which have been harvested for stem cell therapy, used in haematology.

The test method, performed in usual (real) conditions of use, consisted of infusing the catheter with a concentration of

- 10% for DMSO over 4,5 hours (corresponding to 1 transplantation).
- 20% for Paclitaxel up to 24 hours x 10 infusion treatments.

Tests were performed in order to measure and evaluate the possible modifications, caused by the two drugs to the:

- mechanical properties** of the Celsite® catheter (silicone, PUR and Anthron®)
- chemical properties** of the Celsite® catheter (silicone, PUR and Anthron®)

The measurements demonstrate that:

With regards to DMSO

- **Silicone** catheters show no alteration to their properties, under usual conditions.

– **Polyurethane and Anthron®** catheters show no alteration of their properties under usual conditions

With regards to Paclitaxel (Taxol®)

– **Silicone** catheters show no alteration to their properties, regardless of concentration and duration of contact

– **Polyurethane and Anthron®** catheters show a reduction in their mechanical properties (due to a small absorption of the alcohol solvent present in the drug) but still conform to our requirements including of ISO 10555-1 "Sterile, single use intravascular catheters-part 1: General requirements ". The chemical properties had not show any modification or release of components of the materiel into the liquid which it was in contact.

CONCLUSION

Answer: Celsite® ports with silicone catheters or with polyurethane-Anthron® catheters can be used with Taxol® and DMSO under usual conditions of use.

Bibliography

- **Use of totally implantable central venous access ports for high-dose chemotherapy and peripheral blood stem cell transplantation: results of a monocentre series of 376 patients**

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- **Double lumen port access in patients receiving allogeneic blood stem cell transplantation**

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- **Standard ISO 10555-1" Sterile, single use intravascular catheters-part 1: General requirements "**