

# Loading of DC Bead<sup>®</sup> using Doxorubicin Powder 10mg in vial to deliver a dose of 75mg doxorubicin



After loading, the solution in the vial will retain some red colouration as shown. This is to be expected and is not an indication that the DC Bead<sup>®</sup> has failed to load.



Loading and preparation of DC Bead must be carried out using strict aseptic technique under controlled conditions.

**Step 1**

Take 8 vials of 10mg doxorubicin and reconstitute the first vial with 3.2ml water for injection (NOT sodium chloride). Mix well.

**Vials 1-8**

**POWDER**

**Step 5**

Draw up 3ml (75mg) doxorubicin solution from vial 8 using a syringe and needle and add to the vial of DC Bead. Gently agitate before standing for the required loading time.

Gently agitate occasionally during the loading time.

**POWDER**

**Step 2**

Transfer the contents of the 1st vial to the 2nd vial of 10mg doxorubicin powder. Mix well. Transfer the contents of the 2nd vial into the 3rd vial of 10mg doxorubicin powder. Mix well.

**POWDER**

**Step 6**

When loading time is complete, transfer the loaded beads into a 20-30ml syringe using an 18-gauge needle or equivalent.

**POWDER**

**Step 3**

Repeat for the 4th, 5th, 6th, 7th vials until the doxorubicin powder from all 8 vials (80mg) is dissolved in the 3.2ml water (25mg/ml) and contained in vial 8.

**POWDER**

**Step 7**

Expel excess liquid.

**POWDER**

**Step 4**

Take flip cap off the DC Bead vial but do not remove metal around the bung. Pierce the bung with an air-vent needle or equivalent to eliminate vacuum. Remove as much saline as possible using a syringe and needle, with the flattened tip of the needle against the side of the vial to prevent beads being drawn up.

**POWDER**

**Step 8**

To prepare the loaded DC Bead for injection, add 5-10ml of non-ionic contrast medium per ml of DC Bead and mix gently to give a good suspension. Inject solution at a rate of 1ml per minute.

**POWDER**

To deliver a dose of 75mg doxorubicin:

Number of vials doxorubicin powder (10mg)	Number of vials of DC Bead (2ml)
<b>8</b>	<b>1</b>

Loading time for 37.5mg of doxorubicin per ml of DC Bead (75mg per vial)

<b>100-300µm</b>	60 minutes
<b>300-500µm</b>	90 minutes
<b>500-700µm</b>	120 minutes

98% doxorubicin uptake. Tolerance of +/- 3%. Microbiological stability is the responsibility of the user.

Physical and chemical stability  
DC Bead 100-700µm

Doxorubicin-loaded DC Bead (75mg/2ml)	14 days (at 2-8°C)
Doxorubicin-loaded DC Bead with non-ionic contrast	7 days (at 2-8°C)

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