Schedule for NPSA Non-Luer spinal equipment.
Product evaluation; non-clinical

If Trusts feel that their initial assessments of these connectors should be made non-clinically then the following model is an option.

We have used the lumbar puncture simulator produced by Kyoto Kagaku ltd. We have used normal saline in the fluid reservoir, as this has been shown to have the same flow characteristics as normal cerebrospinal fluid (csf). We used a volume of 150 ml to mimic adult csf volume.

We studied the model in the lateral position and the sitting position. The first element we standardised was csf pressure. To do this perform a spinal on the model and attach it to a water manometer (you may need to perform this using Luer equipment if no compatible manometer is available for the NPSA compliant connector you are trying). Adjust the height of the reservoir bag to generate a csf opening pressure of 18 cm H\textsubscript{2}O, the mid point of average csf opening pressure. In the sitting model we took this opening pressure and added a further 56 cm to the height of the reservoir bag, to mimic the height of the sitting patient. The absolute pressure values are not important, but setting values helps you assess the different needles in a more consistent manner.

You can then do one of two things;
1) perform simulated spinal and fill in the assessment form
2) if you are interested in making the assessment wider than anaesthesia then you can also simulate csf collection, we looked at time to collect 0.5 ml, and manometer attachment too.

We looked at 20 needles, 10 in the lateral and 10 in the sitting position. I found that this gave confidence to move on to the clinical assessment, as I had a good feel for the product before opening it in theatre.

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