# ULTRASOUND-GUIDED REFILLING INTRATHECAL DRUG DELIVERY SYSTEMS

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# **OBJECTIVE**

The aim is to perform ultrasound-guided refilling intrathecal drug delivery systems in a safe and comfortable way for patients.

## **METHODS**

Ultrasound-guided refilling intrathecal pump is done after learning pump's sonographyc anatomy.

Later, we perform ultrasound-guided refilling pump with a 50mm high-frequency linear transducer. The number of attempts and the degree of a patient satisfaction it is also evaluated, using Likert scale adapted from SERVQHOS, compared with classic method in our department.

Used Material: Infusion pump Intrathecal morphine Syncromed II, Medtronic and 50 mm high-frequency linear transducer HFL50 attached to the portable ultrasound machine Esaote MyLab 25 Gold.

#### **RESULTS**

The number of patients who participated was 19.

The sample consists of 68.42% (13) men and 31.58% (6) women.

The average number of attempts was 1.33; six cases required a second attempt.

For analysis of patient satisfaction: the objective quality of the use of new technologies, valued with 57.9% (11) patients it was evaluated relate better.

Moreover, as to the subjective assessment, staff training, 47.5% of patients (9) considered it better and how to trust and security is valued contributed 36.8% of the patients (7) as better, all referred to use the scanner respectively by the caregivers.

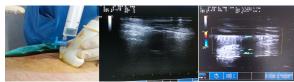


Figure 1: Ultrasound-guided refilling intrathecal drug delivery systems.

## **RESULTS**

#### Likert Scale for assessing Patient Satisfaction

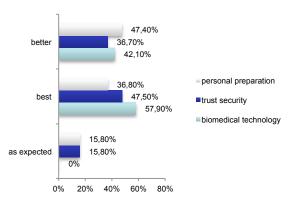


Figure 2: Graphic Likert scale.

### CONCLUSIONS

This is the first preliminary study for try to validate this method.

Ultrasound-guided intrathecal pump access is a feasible and simple technique.

Patient satisfaction seems higher.

#### **BIBLIOGRAPHY**

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