

Final Wet Lab Validation

The Naviswiss navigation system has passed final wet lab validation tests with its total hip replacement module for patients in supine position.

Medical partners PD Dr. Karl-Heinz Widmer (Orthopädie Kantonsspital Schaffhausen, Switzerland) and Dr. Andreas Ottersbach (Spital Wallis, Brig, Switzerland) have expressed their satisfaction with the workflow, surgical technique and instruments. Both are looking forward to use the navigation system in their ORs soon.

Introduction

Simulated wet lab surgeries on a human specimen are critically important to validate the usability of a navigation system. Surgeons and nurses evaluate the surgical technique, software and instruments on a real anatomy, while the engineers stand back and carefully observe and document the procedure.



Material and Methods

Two surgeons and one technical nurse performed two total hip replacements on a human specimen while using the **Short Workflow** on the left side first and the **Extended Workflow** on the right side thereafter. Both were minimally invasive surgeries using a direct anterior access in supine patient position.

Final software and final instruments were used, which prior to the wet lab session underwent last updates based on previous simulated surgeries and lab tests. The goal was a final summative validation of the usability under real conditions.

Results and Conclusions

The tested equipment, software and surgical technique was found user friendly, practice-oriented and fit for clinical use. Both surgeons expressed their interest to use the hip navigation system in their operating theaters as soon full CE certification is achieved.

Short and Optional Extended Workflow

A) Short workflow



B) Extended workflow

