The Swedish Quality Register for Otosclerosis Surgery (SQOS)
A description of the structure and data collection process from 2013-2022
Version 1 June 2022 (eng)

Q1 (baseline) First questionnaire (day of surgery)	Q2 (follow up) Second questionnaire (6 months to 2 years after surgery)	Q3 (PROM) Third questionnaire (approx. 1 year after surgery)
Filled in by the surgeon directly after surgery. * Non-mandatory fields	Filled in by the surgeon at follow up visit or at non-follow up. * Non-mandatory fields	The third questionnaire is filled in either via a secured web-link sent by e-mail or by mail.
• Social security number (date of birth and gender) • Date of surgery • Out- or inpatient surgery: yes/no • Side: left/right • Previous otosclerosis surgery on the other ear: yes/no [α] Revision surgery • Surgical indication: one or several of, hearing/vertigo or dizziness/other – free text field • Previous surgery: stapedotomy/ stapedectomy/floating footplate/ mobilization of stapes/other or unknown – free text field • Previous prosthesis: one of, piston Teflon-platina/piston titan/nitinol/Teflon/ other syntheses prosthesis/malleus prothesis/other/no prosthesis • Reason for malfunction: one of or several of, prothesis dislocation/incus fracture/fixation of incus or malleus/other – free text field • Brief description of the surgical procedure - free text field Hearing aid and tinnitus preoperatively • Has the patient tried hearing aid preoperatively? yes/no/unknown. I "yes", "in which ear?" one of, the operated ear /the non-operated ear/in both ears/unknown • Has the patient tinnitus preoperatively? yes/no/unknown. I "yes", "in which ear?" one of, the operated ear /the non-operated ear/both ears/unknown Preoperative audiogram • Date of audiogram • Bone conduction (0.5, 1, 2, 3, 4 kHz) for the operated ear • Bone conduction (0.5, 1, 2, 3, 4 kHz) for the non-operated ear * • Air conduction (0.25, 0.5, 1, 2, 3, 4, 6, 8 kHz) for both ears • Speech audiometry. If not performed: Not possible to perform/not performed • Date of speech audiometry • Speech audiometry in silence or in noise. Percentage and level in dB(5 dB-steps)* [µ] [###]Other preoperative investigations except audiometri: • Yes/No. If "yes", one or several of CT/Stapes reflex measurements/VEMP/WBT (wideband tympanometry) /Other – free text field Surgery • Surgical method: one of, stapedotomy/ stapedectomy/surgery not completed (primary surgery) [o] • Use of drill (Skeeter or similar): yes/no • Usage of laser: yes/no for each of CO2 fiber/CO2 through microscope/laser 532/laser 1470/other laser • Use of laser: yes/no. If yes, CO2 fiber/CO2 through the microsope/green laser (KTP) /diode laser (1470) /other or more than one laser (specification I free text field) [###] • Surgical steps[###]: *Posterior crus.* One or several of, drill/laser/manual fracturing *Anterior crus.* One or several of, drill/laser/manual fracturing *Perforation of the footplate*. One or several of, drill/laser/manual perforation (trepan) *Sequence of the surgical steps:* 1, Removal of the super-structures, perforation of the footplate, prosthesis insertion. 2, Perforation of the footplate, prosthesis insertion, removal of the super-structures. 3, Perforation of the footplate, removal of the super-structures, prosthesis insertion.	• Reason for non-follow up: One of, absent from return visit/ deceased/ relocated/other – free text • Date of follow up Postoperative audiogram • Date of postoperative audiogram • Bone conduction (0.5, 1, 2, 3, 4 kHz) for the operated ear • Bone conduction (0.5, 1, 2, 3, 4 kHz) for the non-operated ear * • Air conduction (0.25, 0.5, 1, 2, 3, 4, 6, 8 kHz) for both ears • Speech audiometry. If not performed: Not possible to perform/not performed • Date of speech audiometry • Speech audiometry in silence or in noise. Percentage and level in dB(5 dB-steps)* [µ] Adverse symptoms or events: • Yes/no for each of; after surgery developed worse tinnitus/taste disturbance/vertigo-dizziness/NVII symptoms * • Yes/no for ear infection within 6 weeks postoperatively * • Other important information (free text field) * • Validation text (date and adjustment, only for validator)[§]	• Social security number (date of birth and gender) • Date of filling the questionnaire Questions: • Are you satisfied with the information that was given to you before surgery? This question is answered with five alternatives; very satisfied/satisfied/neither satisfied nor dissatisfied/dissatisfied/very dissatisfied • How do you experience the hearing in the operated ear one year after surgery? • As compared to prior to the operation, how is your ability to conduct with daily activities now (work, studies, leisure)? These questions are answered with five alternatives: much better/better/unchanged/ worse/much worse • Are You using hearing aid? Yes/ No. If yes: In the left, in the right or in both ears? [#] • Do you have tinnitus in the operated ear? Yes/ No. If yes: is it better, unchanged or worse as compared to prior to surgery? • Do you have any other adverse symptoms which you relate to surgery? Yes/ No. If yes: explain (free text field)

• Type of prosthesis: one of, piston Teflon-platina/piston titan/nitinol/Teflon/ other syntheses prosthesis/malleus prosthesis/other/no prosthesis • Length of prosthesis: 0.5 mm increments between 4.0 and 9.0 mm and 4,75 mm • Prosthesis diameter: 0.4/0.6/0.8 mm • If revisions surgery: brief description of surgery – free text field • Irregular findings: Yes/no, if "yes", one or several of obliterative otosclerosis/ dehiscent NVII/incus malformation/ fixation of incus - malleus/other-free text field • [β] Perioperative complications: Yes/no, if "yes", one or several of malfunction of equipment/fracture of the stapes footplate/converting to stapedectomy/ unintentional stapes mobilization/ floating footplate/corda tympani severed/eardrum perforation/other-free text field • Anesthesia: full narcosis/local anesthesia • Surgeon (free text, name or coded) * • Other important information - free text field * Automatically registered in the database • Surgical unit • Population registration community for the patient at the time of registration in the register [δ] • If deceased, date of death		

[#] March 3, 2016:
Q3 questionnaire was supplemented with detailed questions regarding use of hearing aid after surgery (specified for each ear)

October 19, 2016:
Time from date of surgery to follow up was limited to 9-24 months.

March 29, 2017:
Time from date of surgery to date of follow up was limited to 6-24 months.

[o] May 17, 2017:
Questions regarding not completed surgery was introduced.

[§] January 17, 2019:
Adding information regarding validation.

October 1, 2020:
[μ] Speech audiometry was introduced in base-line questionnaire and Q2
[δ] Population registration community at time of surgery was introduced
Base-line questionnaire was supplemented with:
[α] Detailed questions regarding revision surgery
[β] Detailed questions regarding adverse findings and perioperative complications
Warnings noticing the surgeon that audiogram data might be falsely entered (i.e. left/right and bone/air conduction errors)

[β] January 1 2021:
"Reason for non-appearance follow" up was added

[##]May 1 2021
4,75 mm prothesis diameter was added

[###]June 1 2022
"Other preoperative investigations" was added.
"Use of laser" was removed and replaced by a more precise description of what type of laser that was used
"Surgical steps" was added"

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