The Swedish Quality Register for Otosclerosis Surgery (SQOS)
A description of the structure and data collection process from 2013-2020
Version 01-10-2020

Q1 (baseline)	Q2 (follow up)	Q3 (PROM)
First questionnaire (day of surgery)	Second questionnaire (6 months to 2 years after surgery)	Third questionnaire (approx. 1 year after surgery)
Filled in by the surgeon directly after surgery. Questions that are not mandatory *	Filled in by the surgeon at follow up visit or at non-follow up. Questions that are not mandatory *	The third questionnaire is filled in either via a secured web-link sent by e-mail or by ordinary mail.
• Social security number (date of birth and gender) • Date of surgery • Out- or inpatient surgery: yes/no • Side of surgery: left/right • Previous otosclerosis surgery in the other ear: yes/no $^{\alpha}$ Revision surgery • Surgical indication: one or several of hearing/vertigo or dizziness/other – free text • Previous surgery: stapedotomy/ stapedectomy/floating footplate/ mobilization of stapes/other or unknown – free text • 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 * Hearing aid and tinnitus preoperatively • Usage of hearing aid preoperatively: one of operated/non-operated/both ears/unknown • Tinnitus preoperatively: one of operated/non-operated/both ears/unknown Preoperative audiogram • Date of preoperative 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 (noiseless or in noise) for both ears* $^{\mu}$ Surgery • Surgical method: one of stapedotomy/ stapedectomy/surgery not completed ^{o} • Usage of drill (Skeeter): yes/no • Usage of laser: yes/no for each of CO2 fiber/CO2 through microscope/laser 532/laser 1470/other laser • Type of prosthesis: piston Teflon-platina/piston titan/nitinol/Teflon/ other syntheses prosthesis/malleus prothesis/other/no prosthesis • Length of prosthesis: 0.5 mm increments between 4.0 and 9.0 mm • Prosthesis diameter: 0.4/0.6/0.8 mm • If revisions surgery: brief description of surgery – free text • Irregular findings: Yes/no, if yes, one or several of obliterative otosclerosis/ dehiscent NVII/incus malformation/ fixation of incus - malleus/other-free text • $^{\beta}$ 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 • Anesthesia: full narcosis/local • Surgeon (free text) * • Other important information (free text) * Automatically registered in the database • Surgical unit • Population registration community at the date of registration in the register $^{\delta}$ • If deceased, date of death	• Reason for non-follow up: One of not obedient 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 (noiseless or in noise) for both ears * $^{\mu}$ 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) * • Validation text (date and adjustment) §	• 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? If yes: left, right or both ears? $^{\#}$ • Do you have tinnitus in the operated ear? 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? If yes: explain (free text)

[#] March 3, 2016:
Q2 questionnaire was supplemented with detailed questions regarding usage 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 of hearing tests.

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)

For further information please contact Lars Lundman, chairman of SQOS, consultant ENT surgeon, Department of Otolaryngology, County Council in Värmland, S-651 85 Karlstad, Sweden. lars.lundman@regionvarmland.se