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Knee arthroscopy for the treatment of degenerative changes of the knee joint

Executive Summary

Report of the Expert Panel of the Swiss Medical Board

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Impressum

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The Federal Office of Public Health (FOPH) re-evaluates healthcare interventions reimbursed by the Swiss compulsory health insurance on a regular basis. Arthroscopy for degenerative changes of the knee was selected because of the large number of patients treated per year and the variable prevalences of arthroscopic interventions performed in different regions of Switzerland. The Swiss Medical Board (SMB) assessed the evidence of clinical effectiveness and safety of the intervention and evaluated the economic implications based on standard methods for systematic reviews and health economic analyses. The present Report was drafted based on this assessment using the Evidence to Decision (EtD) framework.

The assessment included 21 randomized, controlled trials (RCTs) in knee arthroscopy comprising > 2000 patients in total. Control interventions were conservative treatment approaches or other active comparators in 12 studies and non-active comparators (e.g. sham surgery or exercise program) in 9 studies. Critical outcomes (i.e. those having a major impact on decision-making) for desirable effects were joint pain, knee function, and global assessment. In the short term (< 6 months), arthroscopy reduced pain marginally but did not improve knee function or global assessment scores when compared to conservative treatment, while in the intermediate term (6 months to 7 years), there was no difference in any of these three outcomes. Critical outcomes for undesirable effects included adverse events (AEs) and need for secondary surgery. They were only assessed for the intermediate follow-up period, and there were no statistically significant differences between the arthroscopic and control groups.

The Expert Panel concluded that the differences between arthroscopic and control interventions in terms of desirable and undesirable effects were trivial. Taking into account the overall low quality of evidence, the balance of desirable versus undesirable effects is probably in favor of the control interventions.

The cost-utility analysis was based on four eligible economic studies of moderate quality that were adapted for Switzerland, using the healthcare payers' perspective. The results of these studies were ambiguous. Three of the studies reported that arthroscopic surgery was cost-effective, while one of them rated conservative treatment to be superior. Nevertheless, the Expert Panel concluded that cost-utility is more favorable for the control interventions than for arthroscopic interventions. The budget impact analysis was restricted to arthroscopic meniscectomy, and the total expenditure for this indication alone was estimated at about CHF 70 million per year in 2013 and 2014.

The Expert Panel concluded that the patients' assessments of the main outcomes of knee arthroscopy appeared to be fairly consistent. Furthermore, the Panel reasoned that any changes in policy regulating knee arthroscopy would have negligible impact on health equity.

Based on the available evidence and additional sources considered, the Expert Panel issues a strong recommendation against arthroscopic treatment of degenerative changes of the knee. This does not preclude that certain patients presenting with a specific clinical condition might benefit from this intervention. The current rule to conditionally reimburse knee arthroscopy in the inpatient sector should be extended to the outpatient sector. Reimbursement by the compulsory health insurance should be limited to patients with specific clinical conditions likely to benefit from the intervention. Focused prospective clinical studies may help to improve clinical guidance on how to identify such patients as well as those who have a higher risk of experiencing rare but serious AEs associated with knee arthroscopy.