male to female confirmation surgery. Future clinical studies are required to assess the erogenous function of the flap and impact on patient sexual function and quality of life.

**Sex Reassignment Surgery: Is It Good for Patients?**

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**PURPOSE:** In 1981, the Centers for Medicare and Medicaid Services (CMS) issued a National Coverage Determination (NCD) denying coverage for transsexual surgery as a treatment for transsexualism. This NCD was deemed invalid in 2014 by the Department of Health and Human Services, allowing local coverage determinations to adjudicate Medicare claims. Since that time, there has been a marked increase in interest in surgical procedures for sex reassignment, with plastic surgery playing a prominent role. While sex reassignment surgery (SRS) has undoubtedly become safer and more reliable over recent decades, the question remains: does SRS truly help patients with gender dysphoria over the long term? We performed a systematic review to investigate this issue.

**METHODS:** The literature surrounding sex reassignment surgery is broad, diverse, and uneven. We performed a PubMed search with a focus on SRS, patient satisfaction, and outcomes. References within relevant studies, chapters, review articles, and government publications were reviewed. Studies were assessed for level of evidence, quality of study design, and specific outcomes measured.

**RESULTS:** Among the over forty studies examined, the evidence is conflicting, generally of low quality, and lacking strength due to inconsistent methodology, lack of control groups, short-term follow up, small sample sizes, and/or variable outcomes. While subjective measures like patient satisfaction and quality of life are important and generally show improvement, objective outcomes like psychiatric treatment, requests for surgical reversal, and mortality are vital for evaluating the overall effectiveness of SRS. One of the most robust studies examined all patients in Sweden undergoing SRS over 30 years and compared them to random population controls; it found markedly increased adjusted hazard ratios for overall mortality (2.8), particularly death from suicide (19.1), as well as cardiovascular disease (2.5) and neoplasm (2.1); suicide attempts (4.9); and psychiatric inpatient care (2.8), with the overall mortality impact becoming apparent only after 10 years of follow-up. While the study did not examine the impact of SRS independently, it demonstrated that patients undergoing SRS do not return to normal population risk levels of morbidity and mortality, and that one of the most important metrics, survival, is not clearly affected until 10 years after surgery.

**CONCLUSION:** Sex reassignment surgery has progressed a great deal over the last sixty years, with substantive contributions from many medical specialties, including plastic surgery, leading to more safe, functional, aesthetic, and satisfactory outcomes for patients with gender dysphoria. However, what remains to be determined is how effectively SRS treats gender dysphoria over the long term; the literature seems indeterminate at this time. CMS has not issued a NCD regarding SRS “because the clinical evidence is inconclusive for the Medicare population.” Plastic surgery should be at the forefront of studying and providing the evidence that the government, physicians, and our patients need.

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Multiple Anastomotic Thrombus Due to Decreased Anti-Thrombin Activity during Microvascular Anastomosis - Case Report

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