Indications for insurance reimbursement in breast surgery mainly include breast reduction and reconstruction. The process of requesting reimbursement and insurance policies vary greatly. Consequently, while a large majority of these procedures are not aesthetic, they are not always reimbursed. Our aim was to systematically review the existing literature and identify the rates and the reasons for insurance denials in the context of breast surgery.

A systematic review of the literature was performed following the Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) guidelines on PubMed/MEDLINE. We included all articles where reimbursement of plastic surgery interventions were correlated with accepted guidelines for breast reduction or reconstruction. Studies where the information was reported unclearly or where it was impossible to assess the direct link between pathological condition and reimbursement were excluded.

Thirteen studies, published between 1980 and 2017 met inclusion criteria. The majority of the papers (12/13) referred to the United States context, while one was an international survey collecting reports from different countries. A key factor to explain insurance denial was the use of different algorithms to define "medical" vs "esthetic" breast surgery between insurer (weight of the resection or Schnur score) and healthcare workers (symptomatology). This explained in particular regarding breast reductions a certain disparity between surgical indications posed by plastic surgeons and indications accepted for reimbursement. Reconstruction with prosthesis would be better reimbursed than reconstruction with autologous flaps. In particular it is described limited access to autologous reconstructions in patients of low socio-economic level. This explains the increased incidence of prosthetic reconstructions in the United States despite the evidence of long-term economical superiority of autologous reconstructions, especially with the gold standard Deep Inferior Epigastric Artery Perforator Flap (DIEAP).

A standardized, and common documentation between insurance companies and hospitals could reduce insurance denials and finally optimize financial resources utilization.