

Evidence Review

The Guideline for Autologous Tissue Management was approved by the AORN Guidelines Advisory Board and became effective as of December 9, 2019.

A medical librarian with a perioperative background conducted a systematic search of the databases Ovid MEDLINE®, Ovid Embase®, EBSCO CINAHL®, and the Cochrane Database of Systematic Reviews. The search was limited to literature published in English from **January 2014 through October 2018**. At the time of the initial search, weekly alerts were created on the topics included in that search. Results from these alerts were provided to the lead author until **February 2019**. The lead author requested additional articles that either did not fit the original search criteria or were discovered during the evidence appraisal process. The lead author and the medical librarian also identified relevant guidelines from government agencies, professional organizations, and standards-setting bodies.

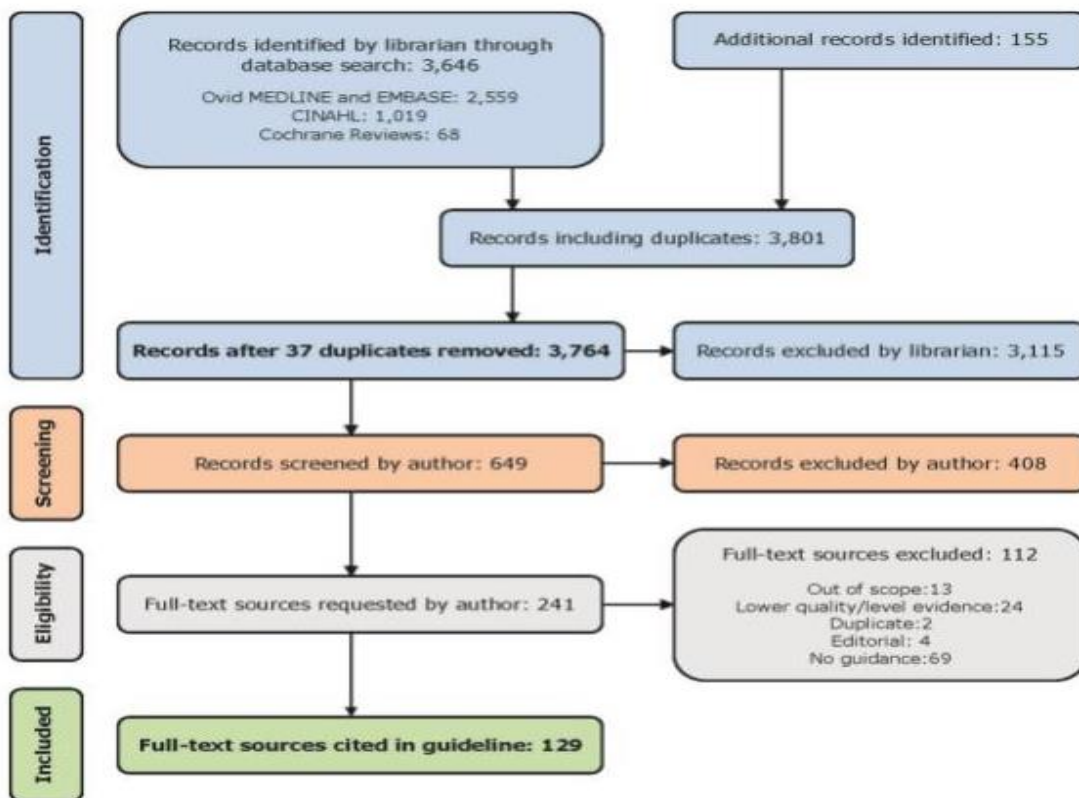
Search terms included *adipose aspirates, adipose tissue, autograft, bone flap, bone resorption, bone transplantation, cell culture techniques, cranial edema, craniotomy, cryopreservation, decompressive craniectomy, fat grafting, intercranial hypertension (surgery), internal mammary artery, internal mammary artery implantation, internal thoracic artery, mammary arteries, ossiculoplasty, parathyroid glands, pedicle flap, radial artery, renal artery, saphenous vein, skull (microbiology, cytology, surgery), sterilization (methods), sterilization and disinfection (methods), surgical flaps, thoracic arteries, time factors, and transplantation (autologous).*

Included were research and non-research literature in English, complete publications, and publications with dates within the time restriction when available. Excluded were non-peer-reviewed publications and older evidence within the time restriction when more recent evidence was available. Editorials, news items, and other brief items were excluded. Low-quality evidence was excluded when higher-quality evidence was available, and literature outside the time restriction was excluded when literature within the time restriction was available (**Figure 1**).

Articles identified in the search were provided to the project team for evaluation. The team consisted of the lead author and one evidence appraiser. The lead author and the evidence appraiser reviewed and critically appraised each article using the AORN Research or Non-Research Evidence Appraisal Tools as appropriate. A second appraiser was consulted if there was a disagreement between the lead author and the primary evidence appraiser. The literature was independently evaluated and appraised according to the strength and quality of the evidence. Each article was then assigned an appraisal score. The appraisal score is noted in brackets after each reference as applicable.

Each recommendation rating is based on a synthesis of the collective evidence, a benefit-harm assessment, and consideration of resource use. The strength of the recommendation was determined using the AORN Evidence Rating Model and the quality and consistency of the evidence supporting a recommendation. The recommendation strength rating is noted in brackets after each recommendation.

Figure 1: PRISMA 2009 Flow Diagram



Adapted from: Moher D, Liberati A, Tetzlaff J, Altman DG; The PRISMA Group. Preferred reporting items for systematic reviews and meta-analyses: The PRISMA Statement. PLoS Med. 2009;6(6):e1000097.

Publication History

- Originally published in November 2014 in Perioperative Standards and Recommended Practices online.
- Minor editing revisions made in November 2014 for publication in Guidelines for Perioperative Practice, 2015 edition.
- Evidence ratings revised in Guidelines for Perioperative Practice, 2018 edition, to conform to the current AORN Evidence Rating Model.
- Revised 2019 for online publication in Guidelines for Perioperative Practice

Scheduled for review in 2024.