

**Appendix A.** PICOTS (population, interventions, comparators, outcomes, timing, and setting) for the key questions.

<b>Population</b>	Women (18 years or older) who have undergone simple mastectomy, modified radical mastectomy, skin-sparing mastectomy, nipple-sparing mastectomy for any stage of breast cancer
<b>Interventions</b>	Autologous, abdominally flap-based breast reconstruction (immediate and delayed, unilateral and bilateral) <ul style="list-style-type: none"> <li>• Transverse rectus abdominis (TRAM) flap (pedicled and free, including muscle-sparing)</li> <li>• Deep inferior epigastric perforator (DIEP) flap</li> </ul>
<b>Comparators</b>	Comparisons include all of the breast reconstruction options listed above
<b>Outcomes</b>	<p><b>Complications</b></p> <ul style="list-style-type: none"> <li>• Total or partial flap loss</li> <li>• Mastectomy skin flap necrosis</li> <li>• Fat necrosis (breast)</li> <li>• Infection (breast)</li> <li>• Hematoma/seroma (breast)</li> <li>• Wound complications, any (breast)</li> <li>• Abdominal bulge/hernia</li> <li>• Wound complications, any (donor-site)</li> </ul> <p><b>Patient-reported outcomes</b></p> <ul style="list-style-type: none"> <li>• <b>BREAST-Q</b> <ul style="list-style-type: none"> <li>○ Psychosocial well-being</li> <li>○ Sexual well-being</li> <li>○ Physical well-being (chest and upper body)</li> <li>○ Physical well-being (abdomen and trunk)</li> <li>○ Satisfaction (with breasts)</li> <li>○ Satisfaction (with abdomen)</li> <li>○ Satisfaction (with outcome)</li> </ul> </li> <li>• <b>36-Item Short Form Survey (SF-36)</b> <ul style="list-style-type: none"> <li>○ Physical functioning</li> <li>○ Role limitations due to physical health</li> <li>○ Role limitations due to emotional problems</li> <li>○ Energy or fatigue</li> <li>○ Emotional well-being</li> <li>○ Social functioning</li> <li>○ Pain</li> <li>○ General health</li> <li>○ Health change</li> </ul> </li> </ul>

<b>Outcomes</b>	<ul style="list-style-type: none"> <li>○ Physical health composite</li> <li>○ Mental health composite</li> <li>● <b>Michigan Breast Reconstruction Outcome Study (MBROS)</b> <ul style="list-style-type: none"> <li>○ Body image</li> <li>○ General satisfaction</li> <li>○ Aesthetic satisfaction</li> </ul> </li> </ul>
<b>Type of study</b>	Comparative cohort and cross-sectional studies
<b>Timing and Setting</b>	Any time point and setting meeting inclusion criteria

**Appendix B.** Risk of bias across included studies of complications and patient-reported outcomes.

