**Supplemental Material Table 1. Procedure Codes Used to Identify Mastectomy and Immediate Reconstruction Procedures**

|  |  |  |
| --- | --- | --- |
| **Operative Category** | **ICD-9-CM Procedure Code** | **CPT-4 or HCPCS Procedure Code** |
| Mastectomy\* | 85.41–85.48 | 19180, 19200–19240, 19303, 19305–19307 |
| Breast implant | 85.33, 85.35, 85.53, 85.54, 85.95 | 19325, 19340, 19342, 19357 |
| Flap reconstruction | 85.7–85.79, 85.85 | 19361, 19364, 19367–19369, S2066–S2068 |

CPT-4 indicates Current Procedural Terminology, 4th edition; HCPCS, Healthcare Common Procedure Coding System; ICD-9-CM, International Classification of Diseases, 9th Revision, Clinical Modification.

\* For mastectomy coded by facility- or provider-only, a code for anesthesia (CPT-4 00400–00406), pathology (CPT-4 88307, 88309), or a surgery revenue code (Uniform Billing 0201, 0360, 0361, 0369, 0370, 0379, 0490, 0499, 0963, 0964, 0975) was required as evidence for surgery.

**Supplemental Material Table 2. Procedure and Diagnosis Codes Used in Combination to Identify Surgical Site Infection**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **ICD-9-CM Diagnosis Code** | **CPT-4 or HCPCS Procedure Code** | **ICD-9-CM Procedure Code** |
| **Breast-specific codes** | | | |
| Infection, lymphadenitis | 611.0, 683.0, 996.69\* |  |  |
| Incision/drainage†, ‡ |  | 19020, 38300, 38305 | 85.0, 85.91 |
| Non-infectious wound complication† | 611.3, 875.0, 875.1, 879.0, 879.1 |  |  |
| Breast implant removal‡ |  | 11971, 19328 | 85.94, 85.96 |
| **General codes**§ | | | |
| Postoperative infection | 998.5–998.59 |  |  |
| Cellulitis† | 682.2, 682.3, 682.9|| |  |  |
| S*taphylococcus aureus*‡, ¶ | 041.1–041.19 |  |  |
| Incision/drainage†, ‡ |  | 10060, 10061, 10140–10180, 11000, 11001, 11005,\*\* 11008,\*\* 11040–11044, 20000, 20005, A6550, A6551, E2402, K0538 | 54.0,\*\* 54.3,\*\* 83.44–83.49, 86.01, 86.04, 86.09, 86.22, 86.28 |
| Non-infectious wound complication† | 567.82,\*\* 998.12, 998.3, 998.32, 998.6,\*\* 998.83 |  |  |

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\*ICD-9-CM diagnosis code 996.69 was excluded if it was coded before a breast implant or flap reconstruction procedure or if it was on a claim with pathology code 88300 on the same day as a catheter removal (because 996.69 could be referring to an infection found on gross examination of the catheter).

†Codes were used in combination with an ICD-9-CM diagnosis code for S*taphylococcus aureus.*

‡Codes were used in combination with an ICD-9-CM diagnosis code for cellulitis.

§Excluded if occurred +/-7 days of an SSI code that was specific to another type of device (ICD-9-CM 996.61–996.68, 999.31) while a catheter was in place.

||Diagnosis code 682.9 codes for cellulitis and abscess at an unspecified site; it was used only if it was on the same claim line as a breast-specific incision/drainage code, on the same day as an implant removal, or coded by the patient's breast surgeon.

¶A *S. aureus* diagnosis code associated with an incision/drainage code was only used if the incision/drainage code was breast-specific or coded by the patient's breast surgeon.

\*\*Excluded if coded before a non-latissimus dorsi flap reconstruction procedure.

**Supplemental Material Table 3. Diagnosis Codes Used to Identify Noninfectious Wound Complications**

|  |  |
| --- | --- |
|  | **ICD-9-CM Diagnosis Code** |
| **Breast-specific codes** |  |
| Fat necrosis | 611.3 |
| Dehiscence | 875.0, 875.1, 879.0, 879.1 |
| **General codes** |  |
| Hematoma | 998.12 |
| Seroma | 998.13 |
| Dehiscence | 998.3, 998.32 |
| Fat necrosis | 567.82\* |
| Tissue necrosis | 998.83 |

ICD-9-CM indicates International Classification of Diseases, 9th Revision, Clinical Modification.

\* Excluded if coded before a non-latissimus dorsi flap reconstruction procedure.