

Supplemental Digital Content 1. Characteristics of Included Studies.

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Year	2021	2016	2022	2021	2017	2021
Country	United States	Australia	Germany	United Kingdom	Australia	Australia
Study Type	Retrospective	Case Series	Retrospective	Retrospective	Case Series	Prospective Cohort
Patients (Breasts)						
NPWTi-d (N)	16 (17)	5 (6)	12 (13)	20 (20)	5 (6)	28 (30)
Control group (C)	9 (10) ^a	0 (0)	0 (0)	20 (20)	0 (0)	0 (0)
Age (years), mean, (range) or \pm SD	47 (35-65)	44 (36-57)	49 (24-94)	N: 47.3 \pm 13.7 C: 57.9 \pm 11.0	45 (41-48)	43 (34-57)
Prosthesis Type, n (%)						
Implants	7 (41)	4 (67)	13 (100)	N: 20; C: 20 (100)	2 (33)	17 (57)
Tissue Expanders	10 (59)	2 (33)	0 (0)	0 (0)	4 (66)	13 (43)
Breasts receiving radiation, n (%)	4 (24)	3 (50)	5 (39)	NR	0 (0)	2 (7)
Time from surgery to infection (days), mean (median)	54.8 (30.5)	112.6 (60)	253.4 (56)	NR	37.5 (22)	49.5 (23)
Pocket bacterial burden, ICM scale, mean \pm SD	NR	NR	1.92 \pm 1.32	NR	NR	NR
Infection Type, n (%)						
MSSA	5 (29)	2 (40)	\geq 1	NR	2 (33)	9 (30)
MRSA	1 (6)	0 (0)	\geq 1	NR	0 (0)	2 (7)

<i>Pseudomonas aeruginosa</i>	3 (18)	0 (0)	0 (0)	NR	1 (17)	2 (7)
<i>Serratia marcesens</i>	2 (12)	1 (20)	≥1	NR	0 (0)	4 (13)
Other	4 (23)	1 (20)	≥5	NR	2 (33)	9 (30)
No growth	1 (6)	1 (20)	2 (15)	NR	1 (17)	1 (3)
Unknown	1 (6)	0 (0)	0 (0)	NR	0 (0)	3 (10)
Inflammatory markers at presentation						
C-reactive protein levels (mL/L) mean (range) / ± SD	NR	NR	55.3 (0-200)	N: 2.70 ± 1.70 C: 1.15 ± 1.22 P = 0.02	NR	75 (2-380)
Leukocytes/WBC, µL	NR	NR	8.16 (3.13 -10.17)	NR	NR	9 (1.8-24.7)
Antibiotic Use						
Type	IV broad spectrum, narrowed based on cultures	IV	IV, cephalosporin + antibiotic for aerobic infections, adjusted based on cultures	IV	IV guided by microbiological sensitivities	IV individualized by Infectious Disease Unit
Timing	On admission for infection	NR	Explantation of infected prosthesis until 5 days post-closure	NR	Explantation of infected prosthesis until re-insertion	On admission for infection

Outpatient	Oral (N=14) or IV (N=2) for ≤14 days as indicated by medical/infectious disease team	NR	NR	NR	NR	≥3 weeks of oral antibiotics after discharge
Surgical Technique	Prostheses Explantation followed by debridement/wash out. Capsule abraded with a Bovie scratch pad to remove biofilm and irrigated. Nonintegrated biologic mesh and necrotic tissue removed then NPWTi-d placed.	Prostheses Explantation and washout. Cavity packed with rolls of sterile foam. NPWTi-d used for irrigation and maintenance.	Prostheses Explantation and irrigation.	Prostheses Explantation followed by debridement/wash out.	Prostheses Explantation followed by debridement/curettage to healthy tissue. Pocket washed with Betadine and normal saline prior to NPWTi-d application	Prostheses Explantation followed by debridement/curettage to healthy tissue. Pocket washed with Betadine and normal saline prior to NPWTi-d application
NPWTi-d Settings						
Solution						

Saline	0 (0)	6 (100)	0 (0)	N: 20 C:20 (100)	4 (66)	11 (37)
Acetic Acid	0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	4 (13)
Polyhexadine	0 (0)	0 (0)	13 (100)	0 (0)	0 (0)	0 (0)
Prontosan	17 (100)	0 (0)	0 (0)	0 (0)	1 (17)	2 (7)
Unknown	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	13 (43)
Volume (mL)	80-400	NR	NR	NR	100-150	100-150
Frequency (hrs)	1-4	1	0.5	NR	3.5	3.5
Dwell time (min)	10-20	15	20	NR	15	15
Pressure (mmHg)	-125	-75	-125	NR	-125	-125
Duration of therapy (days)	1-4	≤7	2-3.5	2-3	NR	NR
Dressing Change Interval (days)	No Changes	2	3-5	NR	3	3
Criteria for reinsertion of prosthesis	Surgeon preference + OR schedule	Clean wound cavity + healthy granulation tissue	Resolution of redness, pain, swelling + decreased CRP + leukocytes + absence of pus	Clean and healthy wound cavity + improved inflammatory markers + negative cultures	Healthy granulation tissue + ≥1 negative culture	Pink granulation tissue + negative culture

Follow-up after replant (months), mean (range)	22 (4-59)	NR	6 (0-60)	NR	9 (3-17)	39.4
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NR = not reported; N = NPWTi-d; C = Control