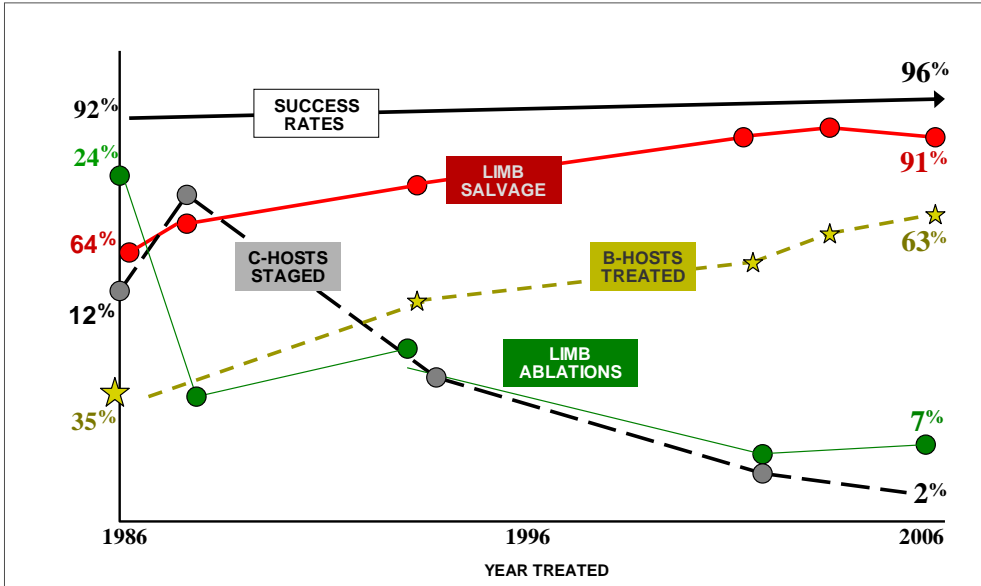


OSTEOMYELITIS TREATMENT CENTER: REOrthopaedics; CA

OSTEOMYELITIS: Treatment Outcomes and Trends (1986 - 2006)

Experience, advances in technology and new pharmaceuticals have broadened the selection criteria for limb-salvage protocols. Over the last twenty years, our success rates have remained relatively constant despite there being a significant increase in both the percentage of B-hosts operated and the actual number of patients offered limb salvage vs ablation or palliation (C-hosts).



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314 BONE DEFECTS:

Methods of Reconstruction (2003 – 2008)

INTERNAL FIXATION ALLOGRAFTS PROSTHETIC JOINTS	32%
METHODS OF ILIZAROV	25%
CANCELLOUS BONE GRAFTS	16%
VASCULARIZED BONE GRAFTS	11%
PERMANENT ACRYLIC SPACERS	8%

314 BONE DEFECTS: This table summarizes a diverse armamentarium of methods used to reconstruct 314 segmental, long-bone defects treated at our centers for infection from 2003 - 2008. When this data was compared to our experience treating similar defects 1998 - 2003, there had been a significant increase in the utilization of internal hardware and permanent acrylic spacers. We have attributed this difference to a 3-fold increase in patients referred to us with peri-prosthetic total joint infections.

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PERI-PROSTHETIC TOTAL JOINT INFECTIONS: Of the 194 late-occurring, peri-prosthetic infections treated at our center, there were 176 revision arthroplasties, 8 primary fusions, 4 primary amputations and 3 patients treated palliatively. Of the 18 overall treatment failures, 50% occurred in B-hosts with three or more co-morbidities affecting healing. Overall success rate was 90%, for the 176 revision protocols.

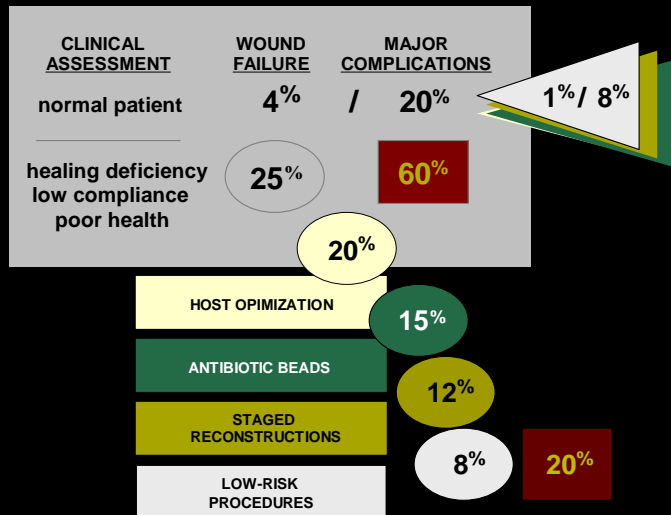
1996-2007		
<u>TOTAL JOINTS</u>	<u>NO</u>	<u>%</u>
Hip	73	38
Knee	109	56
Shoulder	8	4
Elbow	4	2

176 REVISION ARTHROPLASTIES (1996-2007)											
<u>PATIENT COHORT</u>	<u>NO</u>	<u>2yr SUCCESS RATES</u>									
A-host	55	97%									
B-host	121	87%									
<table border="1"> <tbody> <tr> <td>< 3 co-morbidities</td> <td>94</td> <td>93%</td> </tr> <tr> <td>≥3 co-morbidities</td> <td>27</td> <td>66%</td> </tr> <tr> <td></td> <td>121</td> <td></td> </tr> </tbody> </table>			< 3 co-morbidities	94	93%	≥3 co-morbidities	27	66%		121	
< 3 co-morbidities	94	93%									
≥3 co-morbidities	27	66%									
	121										

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PROTOCOLS AFFECTING PATIENT OUTCOMES

(1981 – 2006)



Methods and surgical principles used over the last 25 years to improve outcomes in all patients treated for infection. Although the results have improved for normal patients, the increase in success rates and the decrease in complications in patients with wound-healing disturbances is statistically significant.

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2207 TREATMENT CANDIDATES: 1981-2007
 (success at ≥ 2 years)

<u>Stage</u>	<u>SUCCESS RATE</u>	<u>Stage</u>	<u>SUCCESS RATE</u>
IA (51)	100%	IB (71)	94% (4)
IIA (88)	100%	IIB (194)	89% (21)
IIIA (209)	97% (6)	IIIB (139)	95% (7)
IVA (595) (943)	99% (6) 99%	IVB (860) (1264)	90% (89) 90%

The treatment success rates for A-hosts (normal) is now 99%. Using the methods shown above, the 2-year failure rate for B-hosts (compromised) has decreased with time and experience from 25% to 10% and the complication rate from 60% to 20% despite a B-host cohort of 57%.

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