

# Endograft infection after endovascular aneurysm repair: A systematic review and meta-analysis

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# Endograft Infection Post EVAR

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- ❑ Rare but potentially lethal complication after EVAR
- ❑ Represents both diagnostic and therapeutic challenge
- ❑ The incidence difficult to estimate: most data derive from single-centre studies (0.2%-8%)
- ❑ Graft explantation gold-standard approach, non-operative management or “bridging” therapy for patients with a high surgical risk

# Overview

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**Purpose:** To undertake a systematic literature review upon the management and outcomes of aortic endograft infection after endovascular aneurysm repair (EVAR)

**Method:** Studies reporting cases of endograft infection after EVAR. Performed a meta-analysis on 30-day/in-hospital mortality and follow-up mortality using the random-effects model.

# Results

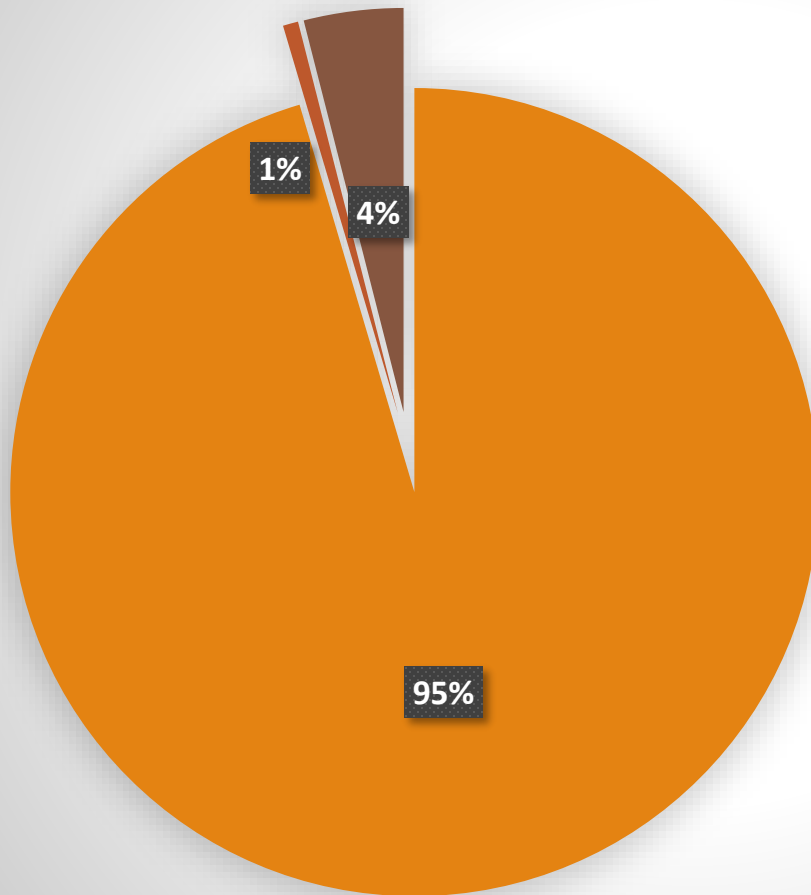
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## **Sixteen articles reporting a total of 329 patients**

- ❑ Incidence of endograft infection 0.6% (95% CI 0.4 to 0.8)
- ❑ The time from implantation to diagnosis ranged from 1-128 months (mean, 26 months)
- ❑ Less than half of the patients in our cohort (40%) had emergency surgery; the rest underwent an urgent or elective.

<b>Presentation</b>	<b>%</b>	<b>Confidence Intervals (95%)</b>
Pain, fever, and leukocytosis	70%	67 - 72
Weight loss/ fatigue or generalized weakness	30%	27 - 32
Infection/abscess	20%	18 - 22
Bleeding complication	10%	7 - 12
Asymptomatic	10%	7 - 12

## Management of Endograft Infection



- Surgical explantation of the Endograft
- Endovascular Treatment
- Conservative Treatment

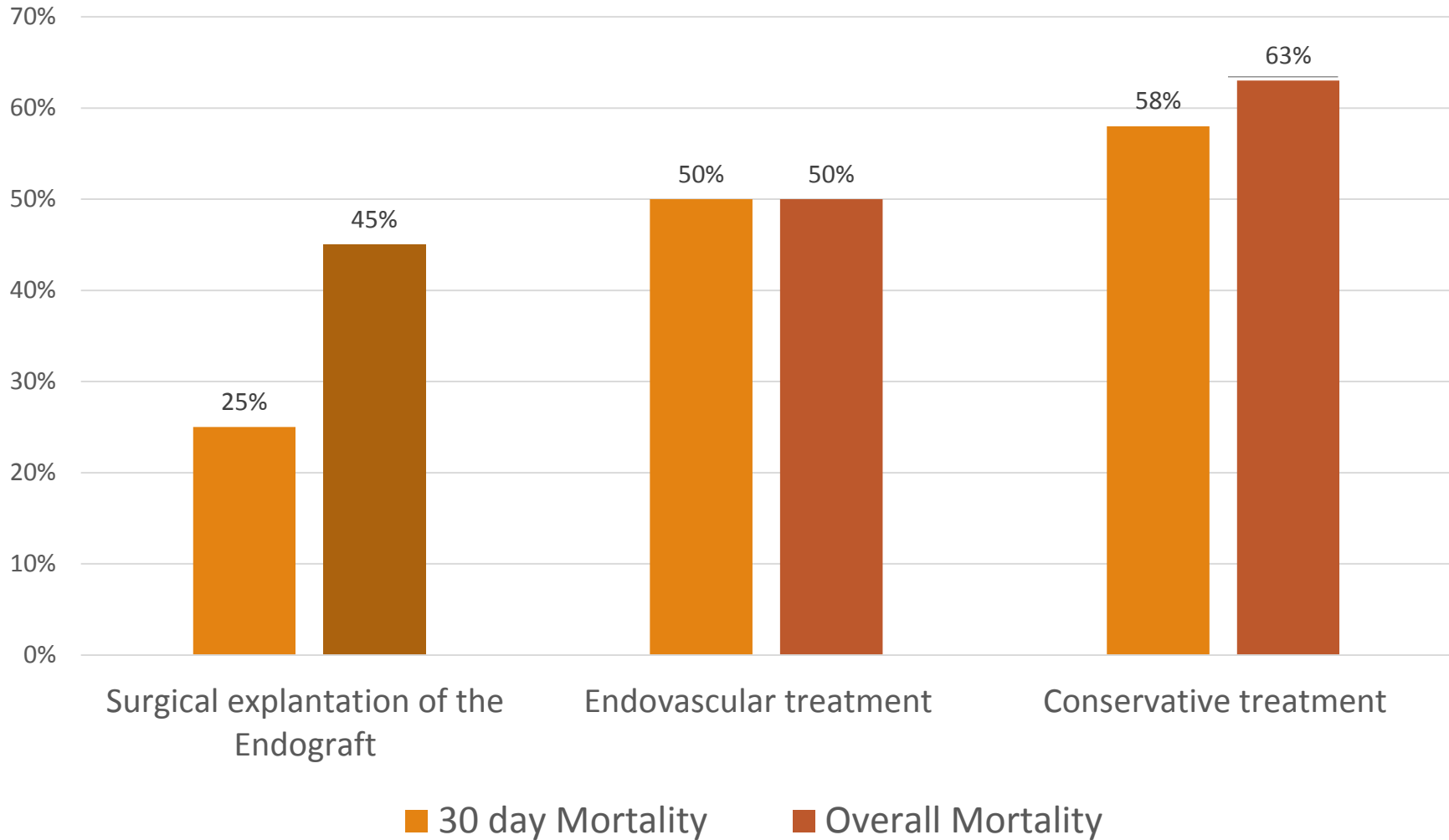
**Number  
(N= 329)**

312

2

13

## Analysis of Outcome



# Conclusions

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- ❑ Insufficient low quality evidence on the management and outcomes of stent graft infection after EVAR
- ❑ A high index of suspicion is required for the early detection and diagnosis of endograft infection
- ❑ Surgical treatment with complete explantation of the infected endograft seems to be the optimal management in selected patients



# Conclusions

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- ❑ Supportive medical treatment without surgical intervention has a significant associated mortality
- ❑ Further research from national and international registries and prospective multi-centre studies is required to define the role and outcomes of specific surgical treatments and predictive factors of outcomes in the management stent graft infection after EVAR.