

## Improvements in peritonitis rates in London over 16 years

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### Introduction

There is good evidence that while peritonitis incidence is associated with patient and centre-level effects, addressing centre effects leads to improved outcomes in all participating centres. Early evidence of the effect of centre size arose from a pan-Thames audit of peritonitis in 2002-2003 reporting peritonitis outcomes from 12 participating units with a rate of 0.81 events/year (CAPD) and 0.66 events/year (APD). We set out to address whether there had been a change in incidence in peritonitis in the intervening 16 years as part of a collaborative approach to quality improvement.

### Methods

We retrospectively collected all episodes of peritonitis in PD patients attending 3 PD units in the original pan-Thames area in 2017 to 2018. These 3 units arose from the consolidation of 6 of the 12 original participating units. 412 patients were on peritoneal dialysis across these units at the end of audit period.

### Results

182 patients with a mean age 62 years (s.d. 15 years) experienced 251 episodes of peritonitis during the 2-year period of which 20 were recurrent episodes. The overall peritonitis rate was 0.38 events/year for all modalities, with variation between the units from 0.21 to 0.47 events/year. Overall cure rate was 74.9% with 50 catheters removed due to peritonitis. Culture negative events formed 27% of all episodes. Despite only one centre using fluconazole prophylaxis, only 5 episodes of fungal peritonitis were distributed across all centres.

### Conclusions

Peritonitis continues to remain a challenge for the care of patients on PD. However, rates within the pan-Thames region have approximately halved in the last 16 years but there remains significant centre-level variability. Data collection to support quality improvement work will require logistical support. Standardising approaches to peritonitis care within a region may lead to further improvements in patient outcomes.