

Peritoneal dialysis (PD) peritonitis rates in Scotland 2002 - 2007



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Background

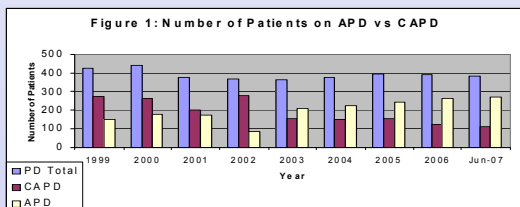
- A prospective national audit of peritonitis in all PD patients in Scotland has been ongoing since 1st Jan 1999.
- Between 1st Jan 1999-Jun 2002 the nationwide incidence of PD related peritonitis was reported as 1 episode every 19.2 patient months with 42.2% of all PD technique failures attributed to peritonitis.
- The Renal Association minimum standard for PD peritonitis is **1 episode every 18 months**.
- The Scottish Renal Association (SRA) held a half day educational session during its meeting in November 2004 to discuss best practice in PD peritonitis.
- This report describes the PD peritonitis data in Scotland in the 2.5 years before and 2.5 years after this session.

Methods

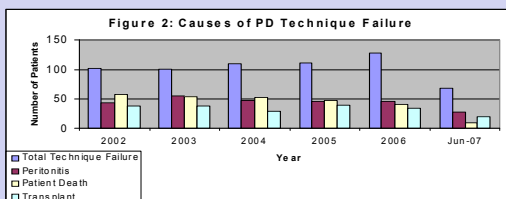
- All episodes of peritonitis during each half year in each of the 10 adult renal units were reported biannually to the SRR.
- A standard definition of peritonitis was utilised throughout the observation period.
- The causative organism and clinical outcome of each episode was recorded and causes of technique failure also were reported.

Results

- The number of PD patients was stable as shown in *figure 1*. However the number of patients on CAPD fell from 204 to 111 as the trend for more patients opting for APD continued.



- Peritonitis remains the leading cause of technique failure with no discernable reduction following the educational session (see *figure 2* NB June 2007 represents only 6 months).

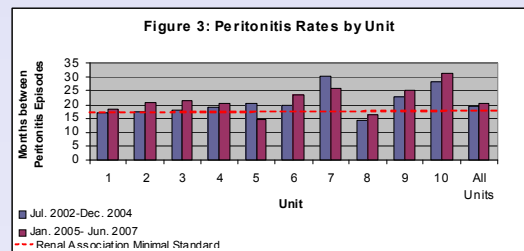


Results

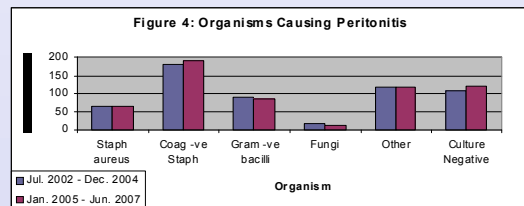
- There were a total of 1157 episodes of peritonitis during the 5 year period with an average incidence of **1 episode of peritonitis every 20.2 months**.
- There was only a minor improvement in the national incidence rates of peritonitis between the 2.5 years before and 2.5 years after the SRA session in late 2004.

Time Period	Jul 2002-Dec 2004	Jan 2005-Jun 2007
Total Episodes Peritonitis	573	584
Technique failure: peritonitis	122	120
Total Months on PD	1116	12037
Peritonitis Rate (months)	19.5	20.6

- However the peritonitis rate in the largest PD unit in Scotland worsened from one episode every 20.1 months to one episode every 12.3 months (unit 5).



- The spectrum of causative organisms was similar during both time periods.
- In unit 5 there was a larger proportion of coagulase negative staphylococcal infections in the second time period: 67 of 573 episodes (12%) in the first 2.5 years to 161 of 584 episodes (28%) in the second 2.5 year period.



Conclusions

- There was a small overall improvement in peritonitis rates in a relatively stable number of prevalent PD patients in Scotland from 2002 to 2007.
- Despite a specific educational session highlighting best practice in avoiding peritonitis, there has been no impact on peritonitis rates in Scotland.
- These 6 monthly prospective audits have identified increased peritonitis rates in one unit, particularly in the last year.
- The peritonitis rate is being monitored closely in this unit after recruitment of additional nursing staff and review of all aspects of local practice in the prevention and management of PD peritonitis.