

SECTION E PERITONEAL DIALYSIS

The prospective national audit of the incidence of peritoneal dialysis (PD) related peritonitis, adequacy of peritoneal dialysis and causes of PD technique failure is reported to the SRR from all adult renal units in Scotland every six months. The causative organism and clinical outcome of each episode of peritonitis is recorded.

The standard definition of peritonitis used by the SRR can be found on the SRR website:

<http://www.srr.scot.nhs.uk/Projects/Projects3.html#periton>

Peritonitis data from 01 January 2000 to 31 December 2011 are reported here, and peritoneal dialysis adequacy and technique failure data from 2011.

The number of prevalent adult patients on PD fell during 2011 from 273 patients on 31 December 2010 to 250 on 31 December 2011.

E1 Peritonitis rates in adult renal units 2000-2011						
Renal unit	Peritonitis rates (months between episodes)					Prevalent PD patients 31 December 2011
	2000-2007	2008	2009	2010	2011	
ARI	17.7	23.0	33.3	19.3	20.0	22
XH	27.2	22.8	22.4	20.8	40.3	46
DGRI	29.8	38.6	17.1	24.8	67.0	13
GLAS*	-	-	-	25.2	15.5	50
GRI	19.7	25.9	29.0	-	-	
MONK	28.9	13.5	26.5	17.2	54.3	10
NINE	23.1	31.2	40.3	18.4	38.4	23
RAIG	15.3	23.9	33.2	19.6	32.7	18
RIE	15.6	13.0	15.2	15.5	18.0	40
VHK	18.7	27.3	14.5	14.9	22.7	28
WIG*	19.6	12.7	16.1	-	-	
Scotland	19.9	18.5	18.7	18.8	23.4	250

*GRI and WIG merged in August 2010; their data are combined for 2010 and 2011 as GLAS.

Peritonitis rates are quoted as the number of patient months between infections.

Although the national peritonitis rate improved to 1 episode every 23 months in 2011, during the past 4 years there was wide variation in the incidence of peritonitis in the some units as well as wide variation between units.

E2 Organisms causing PD peritonitis 2011		
Organism	Number of peritonitis episodes	% of total
Coagulase negative Staphylococcus	45	34.6
Staphylococcus aureus	15	11.5
Gram negative bacilli	20	15.4
Other bacteria (e.g. Streptococci)	25	19.2
Fungal	2	1.5
Culture negative	23	17.7
Total	130	

This spectrum of causative organisms is similar to previous SRR reports and to reports from other regional and national registries.

E3 Causes of PD technique failure 2011		
Cause of PD failure	Number of patients	% of total
Peritonitis	33	38.8
Inadequate dialysis/ poor ultrafiltration	32	37.6
Failed peritoneal access	7	8.2
High intra peritoneal pressure	7	8.2
Switch to haemodialysis	4	4.7
Withdrawal of RRT	2	2.4
Total	85	

Peritonitis and inadequacy of dialysis/ poor ultrafiltration remain the commonest causes of PD technique failure and subsequent switching of PD patients to HD.

All prevalent PD patients at the end of June 2011 and at the end of December 2011 had a most recent total creatinine clearance > 50/L/week/1.73m².