

**Box S1: KNOWLEDGE AND MANAGEMENT OF
FAECAL INCONTINENCE (BOWEL LEAKAGE)**

1-What do you estimate is the prevalence of URINARY LEAKAGE in GP patients in Australia?								
<1%	1-4%	5-14%	15-29%	30-49%	>50%			
2-How much training/education have you received for managing URINARY LEAKAGE / INCONTINENCE?								
None	Small Amount	Moderate Amount	Substantial Amount	Great Deal				
3-What proportion of YOUR PATIENTS present with BOWEL(faecal) leakage as the MAIN COMPLAINT?								
<1%	1-4%	5-14%	15-29%	30-49%	>50%			
4-What do you estimate is the PREVALENCE of BOWEL leakage in GP patients in Australia?								
<1%	1-4%	5-9%	10-14%	15-24%	>25%			
5-What frequency of BOWEL leakage do you consider is a clinically significant problem?								
Every Day	Every Week	Every Month	Every 3 Months	Every 6 Months	Once per Year			
6-How much training/education have you received about management of bowel problems in GENERAL?								
None	Small Amount	Moderate Amount	Substantial Amount	Great Deal				
7- How much training/education have you received regarding management of BOWEL leakage?								
None	Small Amount	Moderate Amount	Substantial Amount	Great Deal				
8-How would you rate your OVERALL KNOWLEDGE of BOWEL leakage?								
Very Poor	Poor	Acceptable	Strong	Very Strong				
9-How would you rate your skills in SCREENING/ASSESSING patients with BOWEL leakage?								
Very Poor	Poor	Acceptable	Strong	Very Strong				
10-How would you rate your skills in MANAGING patients with BOWEL leakage?								
Very Poor	Poor	Acceptable	Strong	Very Strong				
11-Would you like to receive MORE training/education regarding management of BOWEL leakage								
No	Yes	If yes, please specify→	Face-to-Face Lectures	Online	Reading Material	DVD		
12-IF you need to REFER a patient with BOWEL leakage, what kind of SPECIALIST would you choose?								
General Physician	Gastroenterologist	General Surgeon	Colorectal Surgeon	Gynaecologist				
13-IF you need to REFER a patient with BOWEL leakage, how do you locate a suitable SPECIALIST?								
I use the same one I send bowel problems to	Recommendation from colleagues	Anyone based in the nearest hospital	Printed specialist directory	Internet				
14-Do you consider ANY of the following groups to be at HIGHER risk of developing BOWEL leakage? (TICK ALL that apply)								
Female Patients	Male Patients	Patients with Diarrhoea	Patients with Constipation	Patients who have had COLORECTAL Surgery	Patients with Inflammatory Bowel Disease (e.g. Colitis)			
Older Patients	Younger Patients	Patients who have had ANAL Surgery	Patients with Irritable Bowel Syndrome (IBS)	Women with Obstetric Sphincter Injury (OASIS)	Patients with Neurological / Spinal Disease	None		
15-Which of the following would you ASSESS in a patient with BOWEL leakage,? (TICK ALL that apply)								
Food intolerance / allergies	Stool consistency	Stool frequency	Dietary intake	Presence of lower back symptoms	Bleeding per rectum None			
26-TESTS are CLINICALLY USEFUL when assessing patients with BOWEL leakage:								
Disagree completely	Somewhat disagree	Neutral	Somewhat agree	Agree completely				
17-Which of the following would you organise for a patient with BOWEL leakage? (TICK ALL that apply)								
Faecal Occult Blood Test (FOBT)	Colon- oscopy	Abdominal Ultrasound	Abdo X-Ray	Anal Ultrasound	CT Abdo & Pelvis	Anal Manometry	Digital Rectal Exam	None
18-I am confident initiating LIFESTYLE/CONSERVATIVE measures for patients with BOWEL leakage:								
Disagree completely	Somewhat disagree	neutral	Somewhat agree	Agree completely				
19-I am confident prescribing MEDICATION for patients with BOWEL leakage:								
Disagree completely	Somewhat disagree	neutral	Somewhat agree	Agree completely				
20-I have good knowledge of EFFECTIVE SURGICAL PROCEDURES to IMPROVE symptoms of BOWEL leakage:								
Disagree completely	Somewhat disagree	neutral	Somewhat agree	Agree completely				
21-Which do you consider to be BARRIERS to SCREENING / TREATING BOWEL leakage? (TICK ALL that apply)								
I do NOT have the SKILLS to manage patients with bowel leakage			There is NO point asking about bowel leakage as there are NO effective treatments					
Bowel leakage is not COMMON / SIGNIFICANT enough to justify enquiring about it			Bowel leakage is NOT the most important issue to address during the consult					
PATIENTS may not be receptive to screening or intervention			I do NOT have an INTEREST in providing screening or treatment for bowel leakage					
I do NOT have TIME to screen or provide an intervention			I am EMBARRASSED to ask patients about bowel leakage					
I do not have support from SPECIALISTS for pts with leakage			I do not want to EMBARRASS my PATIENTS by asking them about bowel leakage					
I do NOT want to ATTRACT more patients with bowel leakage to my clinic / practice			Patients with bowel leakage should only be treated by SPECIALISTS in the field					

22-Which do you consider to be useful FACILITATORS to SCREENING / TREATING patients with BOWEL leakage? (TICK ALL that apply)

	Knowing WHO to refer patients to for a specialist opinion	Receiving MORE DETAILED communication about patients from specialists after referral
	Knowing WHERE to refer patients for specialist opinion (location of specialist centre)	Receiving LESS DETAILED communication about patients from specialists after referral
	Having EASIER referral processes to specialists (e.g. referral proforma / online)	Access to up-to-date management guidelines and recommendations
	Having more resources to assist me (e.g. web interventions)	More training to make me more COMFORTABLE at broaching an embarrassing topic such as bowel leakage
	If there were EFFECTIVE treatment options available	More training to make me more KNOWLEDGEABLE about treating patients with bowel leakage
	Believing that screening and intervention are clinically important	NOTHING would facilitate the screening / treatment of patients with bowel leakage

Table S1. Additional Demographic details and clinical exposure and previous training or education in managing FI

<i>Demographics</i>	N (%)
City	
Sydney	395 (30.7%)
Melbourne	368 (28.6%)
Adelaide	132 (10.3%)
Perth	167 (13.0%)
Brisbane	223 (17.4%)
Age (years)	
20-30	44 (4.4%)
31-40	267 (26.5%)
41-50	287 (28.5%)
51-60	273 (27.1%)
60+	135 (13.4%)
Average number of clinical hours per week	
<10	61 (6.3%)
11-20	159 (16.5%)
21-30	208 (21.5%)
31-40	280 (29.0%)
40+	258 (26.7%)
Total number of years in clinical practice (primary healthcare)	
<5	125 (15.8%)
5-10	171 (21.6%)
11-15	124 (15.7%)
16-20	154 (19.4%)
20+	218 (27.5%)
<i>Clinical exposure, previous training or education in managing FI</i>	
Proportion of patients presenting to GP with FI as main complaint	
<1%	647 (50.8%)
1-4%	480 (37.7%)
5-14%	116 (9.1%)
15-29%	26 (2.0%)
30-49%	4 (0.3%)
50+%	1 (0.1%)

Note: totals for individual items may not equal 1,285 due to missing data

Table S2. Knowledge and skills of GPs regarding FI

<i>Knowledge</i>	N (%)
GP's self-rated knowledge about surgical procedures available to treat FI	
Very poor	311 (24.7%)
Poor	406 (32.3%)
Reasonable (neither poor nor good)	302 (24.0%)
Good	213 (16.9%)
Very good	26 (2.1%)
Patient group(s) considered by GP to be at higher risk of FI	
Females	794 (62.0%)
Males	87 (6.8%)
Patients with diarrhoea	675 (52.7%)
Patients with constipation	814 (63.5%)
Patients with prior colorectal surgery	929 (72.5%)
Patients with prior anal surgery	1006 (78.5%)
Older patients	998 (77.9%)
Younger patients	79 (6.2%)
Patients with IBD	814 (63.5%)
Patients with IBS	537 (41.9%)
Women with obstetric sphincter injury	983 (76.7%)
Patients with neurological / spinal condition	1052 (82.1%)
Which investigation(s) GP would arrange to investigate FI	
FOBT	556 (43.8%)
Colonoscopy	825 (65.0%)
Abdominal X-ray	272 (21.4%)
Abdominal ultrasound	175 (13.8%)
Endoanal ultrasound	283 (22.3%)
CT abdomen/pelvis	216 (17.0%)
Anal manometry	531 (41.8%)
Digital rectal examination	1003 (79.0%)
<i>Skills</i>	
GP's self-rated overall skills in screening for and assessing patients with FI	
Very poor	137 (10.8%)
Poor	674 (52.9%)
Reasonable (neither poor nor good)	432 (33.9%)
Good	29 (2.3%)
Very good	3 (0.2%)
GP's choice of which specialist to refer to for patient with FI	
General Physician	10 (0.8%)
Gastroenterologist	332 (26.5%)
General Surgeon	80 (6.4%)
Colorectal Surgeon	910 (72.6%)
Gynaecologist	102 (8.1%)
GP's approach to locating specialist to manage FI	

Use same specialist as for 'bowel problems' generally	458 (36.1%)
Recommendation from colleagues	524 (41.3%)
Any specialist based in nearest hospital	117 (9.2%)
Printed specialist directory	127 (10.0%)
Internet	43 (3.4%)

IBD – inflammatory bowel disease; IBS – irritable bowel syndrome; PR – per rectal; FOBT – faecal occult blood test; CT – computed tomography

Note: totals for individual items may not equal 1,285 due to missing data

Table S3. Factors associated with *practical / theoretical training in managing FI*

	Proportion of patients with FI as a main complaint			Training or education in FI management		
	<5%	≥5%	OR (95%CI)	None / small amount	Moderate – large amount	OR (95%CI)
GP's age						
≤50 years	543 (60.6%)	49 (48.0%)		555 (60.5%)	38 (48.1%)	
>50 years	353 (39.4%)	53 (52.0%)	1.66 (1.10 – 2.51)*	362 (39.5%)	41 (51.9%)	1.65 (1.04 – 2.62)*
Practice location						
Metropolitan	586 (62.3%)	58 (51.3%)		593 (61.1%)	48 (60.0%)	
Regional / remote	355 (37.7%)	55 (48.7%)	1.57 (1.06 – 2.32)*	378 (38.9%)	32 (40.0%)	1.05 (0.66 – 1.67)
Years in clinical practice						
≤15 years	383 (54.3%)	33 (41.8%)		390 (54.2%)	26 (40.0%)	
>15 years	322 (45.7%)	46 (58.2%)	1.66 (1.04 – 2.66)*	329 (45.8%)	39 (60.0%)	1.78 (1.06 – 2.98)*
Special clinical interest						
None	206 (20.8%)	21 (17.5%)	0.81 (0.49 – 1.32)	208 (20.5%)	20 (21.7%)	1.07 (0.64 – 1.81)
Women's health	636 (64.3%)	77 (64.2%)	0.99 (0.67 – 1.48)	652 (64.3%)	59 (64.1%)	0.99 (0.64 – 1.55)
Antenatal care	318 (32.2%)	42 (35.0%)	1.14 (0.76 – 1.69)	325 (32.1%)	32 (34.8%)	1.13 (0.72 – 1.77)
Dermatology	174 (17.6%)	33 (27.5%)	1.78 (1.15 – 2.74)**	180 (17.8%)	24 (26.1%)	1.64 (1.00 – 2.68)*
Aged care	145 (14.7%)	33 (27.5%)	2.21 (1.43 – 3.42)***	149 (14.7%)	29 (31.5%)	2.67 (1.67 – 4.29)***
Paediatrics	346 (35.0%)	48 (40.0%)	1.24 (0.84 – 1.83)	356 (35.1%)	35 (38.0%)	1.13 (0.73 – 1.76)
Proportion of patients with FI as a main complaint						
<5%				1044 (90.6%)	72 (65.5%)	
≥5%				108 (9.4%)	38 (34.6%)	5.10 (3.29 – 7.92)***

*P<0.05; **P<0.01; ***P<0.001