

## **SAND abstract No. 105 from the BEACH program 2006–07**

### **Subject: Measurement of severity of illness in general practice**

**Organisation supporting this study:** Australian GP Statistics and Classification Centre

**Issues:** Severity of illness of each problem managed at the general practice encounter; length of the consultation and the general practitioner consultation rate in the previous year; the relationship between the total severity score, consultation length and consultation rate.

**Sample:** 4,982 encounters from 166 GPs; data collection period: 24/10/2006 – 15/01/2007.

**Method:** Detailed in the paper entitled 'SAND Method 2006-07 on this website:

<[http://www.fmrc.org.au/publications/SAND\\_abstracts.htm](http://www.fmrc.org.au/publications/SAND_abstracts.htm)>.

The Duke University Severity of Illness (DUSOI) scale was used to assess the severity of each problem managed at the encounter and to calculate a total score for each encounter.<sup>1</sup>

### **Summary of results**

The age-sex distribution of respondents was similar to the distribution for all BEACH encounters, with the majority (58.5%) of patients being female.

The mean total DUSOI score was 5.2 (95% CI: 5.0-5.5) based on 4,187 scored encounters. Encounters with patients aged 45 years and over had a significant higher mean total DUSOI score than those less than 45. There was a significant positive linear relationship between total DUSOI score and number of GP visits reported in the previous 12 months ( $p < 0.001$ ). Patients reporting 11 or more GP visits had the highest mean total score of 6.4, and those reporting nil GP visits had the lowest total mean score of 3.6. The number of visits increased by 0.6 for every one point increase in total DUSOI score for the encounter

There was a significant positive linear relationship between mean total DUSOI score and the length of consultation with the consultation length increasing by 0.55 of a minute for each one unit increase in DUSOI ( $p = < 0.001$ ). The DUSOI range was 4.0 for consultations of less than 5 minutes to 7.3 for consultations of more than 25 minutes.

For 4,187 respondents, the mean total DUSOI score of encounters with at least one chronic problem managed was 6.7 (95% CI: 6.3-7.1), significantly higher than encounters with no chronic problems (4.1, 95% CI: 3.9-4.2). Linear regression demonstrated a significant positive linear relationship between total DUSOI score and the number of chronic problems managed ( $p < 0.001$ ). The total DUSOI increased by 2.4 points for each chronic problem managed.

The DUSOI from the 6,133 scored problems had a mean score of 3.7 (95% CI: 3.6-3.9). Significantly higher DUSOI scores were recorded for: back complaint (5.1, 95% CI: 4.7-5.4), depression (4.9, 95% CI: 4.6-5.2), acute stress reaction (4.9, 95% CI: 4.4-5.4) osteoarthritis (4.8, 95% CI: 4.5-5.1), anxiety (4.6, 95% CI: 4.2-4.9) and fracture (4.5, 95% CI: 3.9-5.1).

Significantly lower DUSOI scores were recorded for: acute upper respiratory infection (2.9, 95% CI: 2.7-3.2), hypertension (2.6, 95% CI: 2.4-2.9), solar keratosis/sunburn (2.4, 95% CI: 2.1-2.8), lipid disorder (2.3, 95% CI: 2.0-2.6) and pregnancy (1.3, 95% CI: 0.8-1.8).

1 Parkerson GR, Jr., Broadhead WE, Tse CK. The Duke Severity of Illness Checklist (DUSOI) for measurement of severity and comorbidity. *J Clin Epidemiol* 1993; 46:379-393.

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# PLEASE READ CAREFULLY

The shaded section of the following forms asks questions about **PATIENT SEVERITY OF ILLNESS**

You may tear out this page as a guide to completing the following section of forms.

## INSTRUCTIONS

**START Time**

\_\_\_\_\_ : \_\_\_\_\_

AM / PM  
(please circle)

**START time**  
Record the time the consultation STARTED in hours and mins and circle whether the time was AM or PM.  
eg. 9: 10  
AM / PM

### SEVERITY OF ILLNESS - GP estimates for each patient\*.

Estimate the severity of illness for **EACH problem managed at this encounter**. Using the score key below, circle ONE number for each of: **Symptoms, Complications, Prognosis, and Treatability**.

### SEVERITY OF ILLNESS SCORING KEY\*

	<b>None</b>	<b>Questionable</b>	<b>Mild</b>	<b>Moderate</b>	<b>Major</b>
SYMPTOMS (past week)	0	1	2	3	4
COMPLICATIONS (past week)	0	1	2	3	4
PROGNOSIS (next 6 months if untreated)	<b>Disability</b>				<b>Threat to life</b>
	None	Mild	Moderate	Major	4
	0	1	2	3	
TREATABILITY	<b>Need for treatment</b>		<b>Expected response to treatment</b>		
	No	Questionable	<i>If yes</i> → Good	Questionable	Poor
	0	1	2	3	4

\*Copyright 1990 Dept of Community and Family Medicine Duke University Medical Centre, Durham, NC, USA.

### GP consultations in the previous year.

Please check with the patient and write in the approximate number of times this patient has consulted you or any other GP at this or any other practice within the past 12 months.

### FINISH time

Record the time the consultation FINISHED in hours and mins and circle whether the time was AM or PM.

eg. 9: 28  
AM / PM

<p><b>How many times (approximately) has this patient consulted a GP at any practice in the last 12 months?</b></p> <p>_____</p>	<p><b>Severity of Illness - Please circle ONE number for each of: Symptoms, Complications, Prognosis and Treatability using the severity scoring key on the green instruction sheet to estimate the patient's overall severity of illness during the past week for each problem managed at today's encounter.</b></p>	<p><b>Diagnosis/Problem 1</b></p> <p>Symptoms 0 1 2 3 4</p> <p>Complications 0 1 2 3 4</p> <p>Prognosis 0 1 2 3 4</p> <p>Treatability 0 1 2 3 4</p>	<p><b>Diagnosis/Problem 2</b></p> <p>Symptoms 0 1 2 3 4</p> <p>Complications 0 1 2 3 4</p> <p>Prognosis 0 1 2 3 4</p> <p>Treatability 0 1 2 3 4</p>	<p><b>Diagnosis/Problem 3</b></p> <p>Symptoms 0 1 2 3 4</p> <p>Complications 0 1 2 3 4</p> <p>Prognosis 0 1 2 3 4</p> <p>Treatability 0 1 2 3 4</p>	<p><b>Diagnosis/Problem 4</b></p> <p>Symptoms 0 1 2 3 4</p> <p>Complications 0 1 2 3 4</p> <p>Prognosis 0 1 2 3 4</p> <p>Treatability 0 1 2 3 4</p>	<p><b>FINISH Time</b></p> <p>_____ : _____</p> <p>AM / PM (please circle)</p>