

Clinical outcomes of hospital admitted acute patients with Limited English Proficiency

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The Problem:

Monash Health is a large health network in South-Eastern Melbourne. Our consumers are some of the most culturally and linguistically diverse people in the state. Up to 16% of residents in our catchment report limited English proficiency (LEP), 3 times the Melbourne metropolitan average.

Aim:

To examine the effect of English language proficiency on hospital length of stay (LOS) and clinical outcomes for acute inpatients.

Method:

We completed a retrospective case-control study of acute multiday stay patients across two full financial years (2014-15 and 2015-16).

Controls (English Speakers (ES)) were matched to LEP cases using diagnosis related group (DRG), age and expected LOS (Table 1). LEP and ES classifications were assigned based on the patient's preferred primary language and interpreter utilisation during their admission. The matched cohorts were examined for differences in actual LOS (Figure 1) and harm outcome measures (Table 2).

Table 1: Participants

	2014-15FY		2015-16FY	
	ES	LEP	ES	LEP
Unmatched Records (n)	73,406	3,409	77,524	3,780
Matched Records	399	399	750	750
Average Age (years)	59.2	59.1	60.0	60.1
Gender (%Male)	49%	55%	43%	45%
Complexity Score	3.4	3.7	3.2	3.4
Expected LOS (days)	6.2	6.2	6.3	6.3
Received interpreter in 24 hrs of arrival# (%)	-	42%	-	45%

unmatched records

Results:

Figure 1: Length of Stay by Diagnosis Related Group

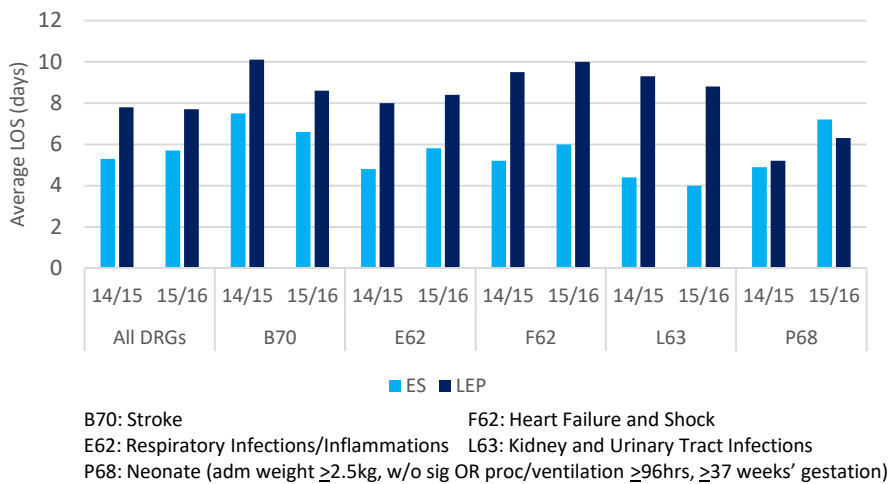


Table 2: Rate of Harm Outcome Measures (all DRGs)

	2014-15FY		2015-16FY	
	ES	LEP	ES	LEP
Average LOS (days)	5.3	7.8	5.7	7.7
Sepsis*	13.7	13.2	14.7	10.9
MET Calls+	90.7	104	45.1	87.7
28 Day Readmission+	242.1	185.2	173.9	330.2
Pressure Injuries*	8.3	5	2.6	1.5
Falls*	5.2	4.9	4.7	3.8
Medication Errors*	5.4	5.1	7.1	4.5

* per 1,000 bed days
+ per 1,000 separations

Results (continued)

People with LEP had a statistically significant longer LOS than those who were ES (2.6 day difference in 2014-15FY; 2.0 day difference in 2015-16FY; $p<0.05$).

The LOS disparity varied between DRG groupings (as shown in Figure 1) and appears to be highest for those patients admitted under the general medicine program. The disparity remained consistent across both years.

There were no differences identified for any of the harm outcome measures in either year (Table 2). This is likely a result of low numbers of harm outcome measures in the dataset and may not reflect the real difference in the unmatched dataset.

Conclusion:

Patients who reported LEP stayed on average 2.6 and 2.0 days longer compared to ES controls in 2014-15FY and 2015-16FY respectively.

Future Plans:

The contributing factors to the LOS disparity is currently being investigated by Monash Health. We intend to identify and implement strategies to reduce the disparity between patients with LEP and those who speak English.

Significance of Findings to Allied Health:

Allied Health plays a significant role across the entire patient journey. Quality improvement initiatives co-designed and implemented with allied health may assist to reduce the disparity in LOS experienced by patients with LEP.

