



Hospital Funding Policies: Average Length of Stay for Congestive Heart Failure Patients

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In April 2010, a patient-focused funding (PFF) program was launched in BC, under the direction of the Health Services Purchasing Organization. A key element of the PFF program is activity-based funding (ABF), where some portion of regional health authority (RHA) funding is tied to their activity.

One objective of the ABF initiative is to create financial incentives for hospitals to operate more efficiently. If international experience holds true in BC, the program should be associated with a reduction in hospital average lengths of stay (ALOS) (1–3).

The argument for this change is that hospitals funded under a global budget do not see any benefit to shortening ALOS, since beds will be filled with new, and more costly, patients (the last few days of a hospitalization are less expensive than the beginning) (4).

In this bulletin we examine the effects of ABF on ALOS for congestive heart failure (CHF) patients. CHF is a syndrome that results from a structural or functional cardiac disorder. About 90,000 BC residents were reported to have CHF in 2008/09, with prevalence forecasted to double by 2030 (5).

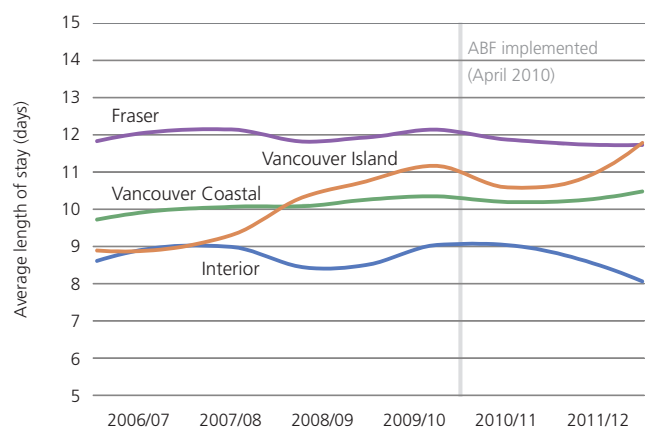
Impact of the Incentive

Figure 1 shows that there is no overall trend in ALOS for CHF among BC RHAs. Fraser Health (FH) shows a steady ALOS over the study period at 11 days. This is the highest ALOS for all RHAs. Vancouver Coastal Health (VCH) shows an increase of 7.6% in ALOS with a 2011/12

What is this research about?

The CIHR-funded *BC Hospitals: examination and assessment of Payment Reform (BCHeaPR)* study examines the impact of activity-based funding on acute care hospitals and related services in BC. Over time, the study team will release analyses on the effects of the change in funding policies. Check www.healthcarefunding.ca for updates and policy implications.

Figure 1: Average length of stay for inpatients with CHF, 2006/07 to 2011/12, for hospitals beginning activity-based funding in April 2010, by health authority



ALOS of 9.9 days. ALOS in Vancouver Island Health Authority (VIHA) has increased from almost the lowest in the province to the highest over the period, with a 2011/12 ALOS of 11.1, an increase of 30.5%. ALOS in Interior Health (IH) has declined by 6% to 7.7 days, the lowest of all RHAs. These figures represent about 4,500 patients.

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Figure 2: Average length of stay for inpatients with CHF, 2006/07 to 2011/12, for the four largest hospitals beginning activity-based funding in April 2010

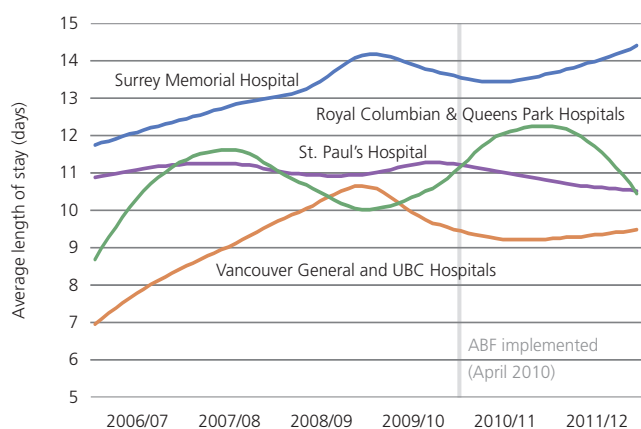


Figure 2 examines ALOS for CHF for the four largest hospitals in BC. Surrey Memorial Hospital consistently has the highest ALOS, at 14.4 days in 2011/12; this increased by 23% over the period. Richmond General Hospital has seen variable ALOS, currently at 10.4 days, an increase of 19.5%. St. Paul's Hospital has had a consistent ALOS at 10.5 days. Vancouver General Hospital has the lowest ALOS at 9.5 days, but this has increased by 37.6% over the study period.

Conclusion

In BC, ALOS for CHF has shown no consistent province-wide trend, although ALOS is increasing in more RHAs then not. These trends started before the introduction of ABF and have continued since. This runs counter to what we expected to observe, based on the evidence. The potential causes for this difference are not known and are under investigation. Possible reasons for this change include unmeasured changes in acuity of patients, change in patient mix, and changes in the type of post-hospital healthcare services (such as home care or residential care) available. The impact of the incentive may not be large enough to offset the factors driving the increasing trend.

This project will continue to calculate and report on changes in ALOS for CHF on a periodic basis.

Technical Notes

The data source is the Discharge Abstract Database. The study population covers BC and non-BC residents who received healthcare services in BC. Volume of cases includes both medical and surgical cases for inpatients.

Only hospitals in the ABF program are included. The one ABF hospital in Northern Health is excluded. The four largest hospitals in BC were selected according to their total inpatient cases in 2011/2012.

ALOS includes both acute care days (Ar_Days) and alternate level of care days (ALL Days). Patients with CHF were selected using the diagnosis code identifying the most responsible condition for the patient's hospitalization, ICD-10-CA =I500.

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