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Association between continuity of provider-adjusted regularity of general practitioner (GP) contact and diabetes-related hospitalisation: A data linkage study combining survey and administrative data

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Background and rationale

We have previously reported decreased rates and costs of diabetes-related hospitalisations with increasing regularity of general practitioner (GP) contact. However previous work has not adjusted for continuity of provider. Thus, despite the relevance for policy development, whether increased regularity is actually a proxy for, or a consequence of, increasing continuity of provider, or is a discrete facet of continuity of care is unknown.

Main aim

To assess the association between continuity of provider-adjusted regularity of GP contact and unplanned diabetes-related hospitalisation or emergency department (ED) presentation.

Methods/Approach

This retrospective, cross-sectional study used linked administrative (from the Centre for Health Record Linkage & the Department of Human Services) and survey data from the baseline 45 and Up Study (2006-09 n=267,153) with a history of diabetes and at least two GP contacts (n=27,409). Multivariable zero-inflated negative binomial and two part generalised linear models were used to assess unplanned diabetes-related hospitalisations or ED presentations, associated costs and cumulative bed days.

Results

Highest regularity of GP contact was associated with a lower probability (-0.28) of diabetes-related hospitalisation or ED presentations. For those with a previous hospitalisation or ED presentation, higher regularity was associated with a reduction in the number of hospitalisations or ED presentations (6

to 8%); bed days (30 to 44%); and average cost (23 to 41%). Importantly, continuity of provider did not significantly modify the effect of GP regularity for any outcome.

Conclusion

Higher regularity of GP contact – that is more evenly dispersed, not necessarily more frequent care – has the potential to reduce health care costs and, for those with a previous hospitalisation, the time spent in hospital, irrespective of continuity of provider. These findings argue for the advocacy of regular care, as distinct from solely continuity of provider, when designing policy and financial incentives for GP-led primary care.

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