A time limited, nurse led intervention reduced hospital readmissions in patients with asthma and a history of frequent admissions


**Q** Does a time limited, nurse led intervention reduce hospital readmissions in patients with asthma and a history of frequent admissions?

**METHODS**

- **Design:** randomised controlled trial.
- **Allocation:** concealed.
- **Blinding:** unblinded.
- **Follow up period:** 1 year.
- **Setting:** Barnes-Jewish Hospital, St Louis, Missouri, USA.
- **Patients:** 96 patients 18–65 years of age (mean age 36 y, 83% women, 82% African-American) who were admitted to hospital with asthma exacerbation, had physician diagnosed asthma for >12 months, forced expiratory volume in 1 second to forced vital capacity ratio <80%, and >1 hospital admission in the previous 12 months.
- **Intervention:** a 6 month, limited, nurse led intervention (suggestions to the primary physician to simplify or consolidate current regimens; completion of daily Asthma Care flow sheets; asthma education; psychosocial support and screening for counselling; follow up through telephone contact, home visits, and primary physician visits; individualised asthma self management plan; and consultation with social service professionals to facilitate discharge planning) (n = 50) or usual care by a primary care physician (n = 46).
- **Outcomes:** hospital readmissions for asthma within 1 year. Secondary outcomes included cumulative number of days in hospital, emergency department (ED) visits, asthma specific quality of life, and total healthcare costs.
- **Patient follow up:** 100% intention to treat analysis.

**MAIN RESULTS**

Fewer patients in the intervention group than in the usual care group had >2 readmissions (table). Patients in the intervention group had fewer asthma specific readmissions (21/42, p = 0.04) and fewer days in hospital for asthma (53 v 129 d, p = 0.04). The intervention had lower total healthcare costs (US$5726 v $12 188 per patient, p = 0.03). The groups did not differ for ED visits (93 v 64, p = 0.52) or asthma specific quality of life.

**CONCLUSION**

A time limited, nurse led intervention reduced asthma readmissions, hospital days, and total healthcare costs more than usual care in patients with asthma and a history of frequent admissions.

See commentary on next page.

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