**EXPLORE THE LITERATURE ON DELIVERING HOME IV THERAPY**

This is a summary: the full paper can be accessed at nursingtimes.net

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This study aimed to help policymakers formulate guidelines on treatment strategies for patients with infective conditions that can be treated with IV antibiotic therapy at home. Several databases were searched for published and unpublished studies in English on home IV therapy from 1995 onwards.

The US has an already well-established non-hospital based service for home IV antibiotic therapy. Patients, relatives and carers are satisfied with the option of having a traditionally hospital-based treatment carried out at home.

The review found no evidence that the initial two doses of therapy must be administered in a hospital environment, as was once standard practice. Patients are satisfied with home treatment, which improves their quality of life and choice.

The UK’s population is ageing and healthcare delivery has shifted significantly from acute to primary care settings. This has resulted in an environment in which the roles of those providing care are changing rapidly (Department of Health, 2006a). Kayley (2003) stated that traditional nurses’ roles have expanded and many treatments once conceived as inpatient procedures can now be performed successfully in patients’ homes.

IV therapy is one such treatment suitable for what has become known as ‘hospital-at-home’ or ‘hospital home care’ (Kayley, 1996). Both UK and international qualitative studies have demonstrated that IV therapy can be delivered safely and effectively in patients’ own homes (Smego, 2005; Esposito, 2000; Tice, 1995).

**METHOD**

Several databases were searched for published and unpublished studies in English on home IV therapy from 1995 onwards. These were: Medline; CINAHL; Policy Hub; the British Library; the RCN; the Cochrane Collaboration; the York Centre for Dissemination and Review and EMBASE. An additional search of bibliographies and reviews was undertaken and contact was made with key authors for additional unpublished information where necessary.

**RESULTS**

Six main themes emerged from the literature. These were:

- Safety of the procedure;
- Preventing admission to hospital;
- Skill mix — using the skills of advanced practitioners;
- Patient satisfaction with home therapy;
- Quality of life;
- Prescribing habits for antibiotics in different countries.

**Safety**

Wolter et al (2004) conducted a randomised controlled trial (RCT) of home versus hospital IV antibiotic therapy in Australia. Their study included 129 patients who were referred for IV therapy. It is unclear how long the whole trial lasted but the authors drew several positive conclusions. There was evidence to indicate that antibiotic therapy given intravenously in the home carries no greater risk than when administered in hospital.

Further evidence of safety emerged from Australia when Trowbridge and Kralik (2006) reviewed the evidence for IV antibiotic therapy in the community. Their study was primarily concerned with safety in the administration of the first and second doses of antibiotics. Conclusions indicated there was no greater risk in performing this in patients’ own homes and it was safe to do so.

Smego (2005) also provided evidence of safety in an article describing a university-sponsored home health nursing programme in a large urban centre in Pakistan. This researcher said significant cost savings could potentially be made by delivering healthcare at home and, as in previous studies, noted that home IV therapy is a safe procedure.

**Patient satisfaction**

Dubois and Santos-Eggimann (2001) conducted a qualitative study in Switzerland over two years to measure patient satisfaction with hospital-at-home care. This study recruited 174 patients for a pilot scheme at four sites in the Canton region. Only 107 patients were actually admitted onto the scheme during the two years, making it a relatively small-scale project. Just six people were transferred straight home from the hospital where they had been assessed to commence treatment.
immediately. Semi-structured interviews were used to evaluate patient satisfaction with the service.

The authors stated nearly 80% of patients were satisfied with their home care. Older men appeared to have support from their wives at home, yet older women were often alone or had family who worked and therefore they felt more isolated and preferred to stay in hospital. The authors acknowledged that the lack of a control group made it difficult to discuss other important outcomes measured but did not specify which ones.

Quality-of-life issues
Wolter et al’s (2004) RCT aimed to show that home care is a feasible alternative to hospitalisation for a range of infections, without compromise to quality of life or clinical outcome. The study’s main aim was to determine an improvement in quality-of-life issues in relation to hospital or home care.

It is interesting to note that 33 people withdrew from the trial. Some did so immediately on being randomised to the hospital group because an option involving modified home care was made available.

Wolter et al (2004) felt that RCTs would become increasingly difficult to perform as home-based care became more widely available. It was suggested that patients prefer to receive treatment at home. Results indicated that home administration of IV antibiotic therapy is safe and offers improvements in patients’ quality of life.

Esposito (2000) presented a paper to the British Society for Antimicrobial Chemotherapy describing the Italian model for treatment. This focuses on self-administration of prescribed drugs. Patients and/or their relatives are taught how to administer the drugs safely and treatment is received solely at home. Esposito (2000) noted that home therapy has become widely accepted because of improvements in quality of life, which have been widely documented in the US.

Advanced nurse practitioners
Deagle (2001) discussed administering antibiotic therapy at home and the benefits to patients. She discussed the skills required by nurses to perform this service effectively and drew on work carried out in Southampton.

Like other authors, Deagle noted that in the US, outpatient IV antibiotic therapy is well established with advanced nurse practitioners in lead roles. This author also noted that outpatient antibiotic therapy pathways are underdeveloped in Europe and provided information on audit from the international OPAT (outpatient antibiotic therapy) registry.

Trowbridge and Kralik (2006) provided further evidence from Australia on the increasing complexity of community nursing procedures provided to patients at home, and how the nurse’s role is changing.

Patient choice
Wilson et al (1999) conducted what they claimed was the first RCT directly to evaluate a hospital avoidance scheme. The eight-month trial randomised 199 consecutive patients to either hospital or hospital-at-home treatment.

Six per cent of patients randomised to the hospital-at-home group refused to be admitted to it. However, of greater importance is the fact that 24% of those randomised to the hospital group refused as they preferred to be treated at home. This provides strong evidence that many patients prefer home to hospital treatment.

Preventing hospital admission
Wilson et al’s (1999) RCT compared the effectiveness of hospital-at-home care with hospital care. They noted that such schemes provide treatment that would otherwise require inpatient care.

It is acknowledged that these schemes have been developed to prevent hospital admission and to enable early discharge, as well as reduce costs. A total of 199 patients took part in the trial over eight months. Wilson et al (1999) concluded that hospital-at-home care resulted in significantly shorter lengths of stay and did not lead to higher rates of subsequent readmission.

Nathwani and Morrison (2001) reviewed the evidence and evaluated future prospects for IV therapy at home. These authors acknowledged studies by Esposito (2000) and Wilson et al (1999) and noted considerable savings in hospital costs could be made, as well as reducing the risk of contracting a healthcare-associated infection.

CONCLUSION

The introduction of IV antibiotic therapy in patients’ homes by community nurses can be beneficial in numerous ways. Cost savings due to preventing hospital admission could be massive, or it could maintain an efficient early discharge scheme for suitable patients. Home treatment offers patients choice and can improve quality of life.

Advanced nurse practitioners’ skills could perhaps be enhanced with the introduction of such a service.