Introduction
The cranberry is a native North American fruit of the "vaccinium" genus and has long been the focus of interest for the beneficial assistance in prevention and treatment of urinary tract disorders. Urinary tract infection (UTI) causes frequent and painful urination and is more common in women than in men. In elderly people associated side effects include acute confusion, cough and dyspnoea. Antibiotic treatment is associated with potential side effects, cost, and development of antibiotic resistance. Consumption of cranberry juice is safe and without major side effects (Eagan 2002).

Aim
Literature search was conducted to determine whether cranberry juice can be used as an alternative, compared to the use of antibiotics for the elderly as a prophylaxis or treatment for UTIs.

Method
Data bases searched consisted of CINAHIL, Ovid Medline, Cochrane, Blackwell Synergy and Google Scholar. Key words used were 'cranberry', 'urinary tract infection', 'research' and 'randomised trial'. Final articles were selected on the criteria that they all had the word 'cranberry' in their title or abstract.

Implications for practice
- Complications of UTI can be quite extensive such as increased incontinence, acute confusion, decreased mobility and possible hospitalisation.
- Maintaining skin integrity, mobility, hydration and quality of life is easier when a person is free of infection.
- Minimising recurrence of UTI in the elderly will reduce nursing time spend in frequent changing of soiled bedding and clothing.
- Reduction in UTI impacts on number of doctor’s visits, prescriptions, pathology tests and cost of antibiotic treatment.
- Costs to organisations are also reduced in terms of linen usage and continence products.

Conclusion
- Trials conducted have shown some evidence that the use of cranberry products can be effective in reducing UTI.
- Results did not show any significance in prevention or treatment.
- As the incidence of multiple resistant antibiotics is increasing, it can be beneficial to promote the use of cranberry for the reduction of recurrent UTIs.
- Further research is needed to establish the usefulness and practicality of cranberry as a deterrent.

Findings
- Some studies suggest that the possible bacteriostatic effect is due to the acidification of urine (Jackson & Higgs 1997).
- Others are of the opinion that cranberry inhibits bacterial adherence to the mucosal surfaces through the presence of proanthocyanidins (Eagan 2002; Raz et al. 2004).
- Proanthocyanidins are present in the juice from the vaccinium berries, which are the cranberry and blueberry.
- A-linked proanthocyanidins are only found in cranberries and have been proven to possess bacterial anti-adhesion activity (Howell et al. 2005).
- In order to cause infection bacteria have to develop long protein appendages, called fimbriae to allow adherence to the epithelial cells within the urinary tract. Cranberry juice causes loss of fimbriae and elongation of the bacterial cell resulting in disruption of the cell wall. Consequently fimbrial attachment takes place incorrectly or not at all (Ahuja et al. 1998).
- Studies conducted on the effect of antibiotics such as ‘ampicillin’, ‘penicillin’ and ‘penfloxacin’ have shown elongation of bacterial cells.
- Hooton & Stam (cited in Stapleton 2003, p. 43) are of the opinion that "Escherichia coli" are the causative pathogens in 75% to 90% of cases of UTI. Several in vitro studies have observed that cranberry has anti-bacterial adherence properties particularly in relation to E. coli.

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