PRIORITY BRIEFING
The purpose of this briefing paper is to aid Stakeholders in prioritising topics to be taken further by PenCLAHRC as the basis for a specific evaluation or implementation research project. They were complied in 2-3 days.

Does implementation of a package of Pelvic Floor Muscle Training (PFMT) administered by primary care nurses result in fewer referrals to secondary care for urinary incontinence (UI)?

Question ID: 5
Question type: Implementation
Question: Does implementation of a package of Pelvic Floor Muscle Training (PFMT) administered by primary care nurses result in fewer referrals to secondary care for urinary incontinence (UI)?

Population: Adult women with UI attending primary care clinics.

Problem: NICE recommends that the first line treatment of UI is PFMT provided in primary care. The appropriate form of PFMT is supervised training by a physiotherapist or specialist nurse. However there are insufficient numbers of trained staff to provide PFMT for all women with UI in primary care and, arguably, in secondary care. Work undertaken in the Urogynaecology Unit at Derriford in collaboration with primary care and PCMD has shown that short-course trained primary care nurses can deliver PFMT with outcomes comparable to those of specialist nurses and better than untreated controls. This package if implemented routinely in primary care should improve incontinence and quality of life and reduce the need for subsequent referral to secondary care.

Setting: Currently most women with urinary incontinence are referred to secondary care with few receiving the NICE-recommended first-line treatment of PFMT in primary care. This is probably due to lack of trained personnel and resources.

Solution: Short-course training delivered to Primary Care nurses who will then be in a position to carry out pelvic floor assessments and give basic PFMT to a range of women presenting in primary care. Key to this implementation will be raising GP awareness of the importance of managing incontinence.

Outcomes: Reduction in the number of referrals to secondary care for women with UI. Patient satisfaction with the new primary care service, using the International Consultation on Incontinence short-form questionnaire as an outcome measure. Changes in primary care nurses' knowledge and skills.

Pelvic Floor Muscle Training (PFMT):
The pelvic floor muscles are located underneath the bladder and rectum. They are involved in the process of passing urine. These muscles often become

weakened as a result of childbirth. When the muscles in this area are weakened the individual is much more likely to develop some kind of UI. PFMT aims to strengthen these muscles to help regain control of UI.

Urinary incontinence (UI):
Urinary incontinence is the involuntary leaking of urine from the bladder. There are several different types: Stress UI is involuntary urine leakage on effort or exertion or on sneezing or coughing; Urge UI is involuntary urine leakage accompanied or immediately preceded by urgency (a sudden compelling desire to urinate that is difficult to defer) and; Mixed UI is involuntary urine leakage associated with both urgency and exertion, effort, sneezing or coughing. UI can affect women of all ages with a wide range of severity. UI tends to be more prevalent in women than in men.

The Health Problem

Prevalence of UI varies widely depending on definitions, study populations and survey methods. However, one study[7] reported 69% prevalence of any incontinence in community dwelling women (as opposed to women living in residential care). Stress urinary incontinence that is 'bothersome' to women varies between 37-42%.[5] As it becomes a long-term problem, it also becomes more expensive.

Worldwide the WHO report that one third of women have urinary incontinence after childbirth. The NHS estimate that one in five women aged over 40 years, 24% of people over 65 years and 30-60% of people in long term care settings are affected by Urinary Incontinence.

The Department of Health (DOH 2001) reported that in a typical GP practice of ten thousand patients, the average cost for managing incontinence per year to the practice was £737,000. The Leicestershire Medical Research Council (MRC) Incontinence Study estimated the annual cost of treating clinically significant UI at £233m for women. Total annual service costs expended on individuals was estimated to be £743m.

Guidelines:

The NICE Guideline (2006*) Urinary Incontinence: the management of urinary incontinence in women* suggests that the first line of treatment for those suffering with stress incontinence is PFMT lasting for three months. The guidelines do not state who PFMT can be delivered by.

SIGN guidelines (2004) *Management of Urinary Incontinence in Primary Care* also suggest that PFMT should be the first treatment offered to patients with stress or mixed incontinence and as part of a plan for those with urge incontinence but they do not specify who should deliver it

European Association of Urology (2009*) Guidelines on Incontinence* also recommend PFMT but again do not specify who should deliver it.

NHS Primary Care Contracting (2008) *Providing care for patients with urological conditions: guidance and resources for commissioners* guidelines recognise that there is a lack of appropriate expertise and diagnostic support for incontinence, especially in primary care. The guidelines ask commissioners to consider which outcomes could be improved by better resourcing of prevention strategies and education and recommend that GPwSI (General Practitioner with Special Interest) and extended role [nurse] practitioners providing expert urological care in the primary sector must be affiliated to the local urological team (in secondary care) and have achieved proven urological competencies in their areas of practice. The guidelines also suggest that evidence exists from the community services provided in Manchester and Cambridge that 60 - 80% can be managed without referral into secondary care.

NICE (2008*) Commissioning Guide: Urinary continence service for the conservative management of urinary incontinence in women guidelines* continue to recommend the use of incontinence physiotherapists or nurse specialists.

NHS Priority

Regional

SW SHA Priorities framework 2008-11

No specific priorities aimed at urinary incontinence in women, but the SWSHA does have a priority to fulfil the Department of Health guidance (2007) *Maternity matters: choice access and continuity of care in a safe service* which aims to improve the quality and outcomes for maternity service users through effective commissioning.

Local

Local perspective

No specific priorities from the local south west regions except the RCAT aim to explore how to provide better facilities for parents.

Existing Research

Published research

There has been one review examining the literature on the mechanism, presentation and management of multiple symptomatology in pelvic floor dysfunction.[1] This review highlighted a need in this area of women's health care to have nurses (community- or hospital-based) who can play a front-line role in challenging and changing current practices. The review also suggests that education needs to be given greater priority and the development of a specialist pelvic floor nurse role explored – giving support for the overall question presented in this priority briefing.

Most studies investigating the use of PFMT in incontinence care support the use of PFMT for managing urinary incontinence symptoms, however most of the studies use physiotherapists to deliver the PFMT programme.[3] There are, however, two studies identified who used nurses to deliver the programme.[6,2] One study trained undergraduate nurses in PFMT through an optional module. These nurses were assessed for their knowledge before and after training and received specific education from a specialist physiotherapist. In this study 59% of participants in the intervention arm reported improvement at 3months in comparison to 48% in the standard care group. In another study conducted in 1990[2] a non-specialist nurse received a three week training programme in the assessment and treatment of incontinence. In this study 68% of the women treated reported that their condition had improved or was cured. This study supports the role of non-specialist nurses in the provision of PFMT in primary care (although others still claim that monitoring by an experienced physiotherapist is needed to ensure optimum success)[5]. Further research into the

use of nurses in primary care to deliver an effective package of PFMT for women with urinary incontinence needs to be conducted.

Ongoing Research:
There are two identified pieces of ongoing research:
Albers-Heitner, P., B. Berghmans, et al. (2008) are investigating the effects of involving a nurse practitioner in primary care for adult patients with urinary incontinence (PromoCon study) in the Netherlands. The main objective is to investigate the effectiveness and cost-effectiveness of involving nurse specialists in primary care for urinary incontinence. There will be an economic evaluation where quality of life and costs will be measured alongside the clinical trial. Current Controlled Trials ISRCTN62722772.

A pilot feasibility study for: Prevention of Postpartum Stress Urinary Incontinence by Midwife-Delivered Antenatal Pelvic Floor Muscle Training; A cluster randomised controlled trial is being run at Plymouth Hospitals NHS Trust by Mr Robert Freeman (£157,386 for one year)

Feasibility:
In a local community survey less than 4% of women with incontinence problems had received PFMT (25 out of 762). A rough estimate of the prevalence of incontinence in Devon and Cornwall is 25% (250,073 of the whole population, 130,809 of the female population). Of these it is estimated that 50% will have stress incontinence and on 25% will have asked for help with the problem.

References

(1) Davis, K. and D. Kumar (2003). "Pelvic floor dysfunction: a conceptual framework for collaborative patient-centred care." J Adv Nurs 43(6): 555-68. BACKGROUND: Pelvic floor dysfunction is a disorder predominantly affecting females. It is common and undermines the quality of lives of at least one-third of adult women and is a growing component of women's health care needs. Identifying and supporting these needs is a major public health issue with a strong psychosocial and economic basis. The importance of the interdependence of mechanical, neural, endocrine and environmental factors in the development of pelvic floor dysfunction is well recognized. There is a paucity of data investigating the true prevalence, incidence, specific risk factors, poor outcome of treatment and subsequent prevention strategies for women with multiple pelvic floor symptomatology. AIM: The aim of this paper is to present a critical review of the literature on the mechanism, presentation and management of multiple symptomatology in pelvic floor dysfunction and to propose a conceptual framework by which to consider the impact and problems women with pelvic floor dysfunction face. METHODS: A comprehensive although not exhaustive literature search was carried out using medical and nursing databases BIOMED (1966-2002) NESLI (1989-2002) and EMBASE (1980-2003) CINAHL (1982-2003) and Cochrane databases using the key words 'pelvic floor dysfunction', 'incontinence (urinary and faecal)', 'genital prolapse', sexual dysfunction, 'aetiology', epidemiology' and 'treatment'. Retrospective and prospective studies and previous clinical reviews were considered for review. The articles retrieved were hand searched for further citations and referrals were made to relevant textbooks. Particular attention was paid to papers that focused on multiple pelvic floor symptoms. FINDINGS: Pelvic floor dysfunction affects women of all ages and is associated with functional problems of the pelvic floor. Pelvic floor dysfunction describes a wide range of clinical problems that rarely occur in isolation. Inaccurate knowledge, myths and misconceptions of the incidence, cause and treatment of pelvic floor dysfunction abound. Given the significance of the aetiological contribution of factors such as pregnancy and obstetric trauma, ageing, hormonal status, hysterectomy and lifestyle in the development of pelvic floor disorders, the assessment, management and prevention of pelvic floor dysfunction remains a neglected part of many health care professionals educational preparation. This not only has major economic but also psychosocial implications for women, the general population and women's health care providers. A conceptual framework is also discussed that considers not only the impact and difficulties women with pelvic floor dysfunction face but also areas in which health care professionals can improve assessment and eventual treatment outcomes. CONCLUSION: This paper demonstrates gaps in the current provision of women's health care services. Functional pelvic floor problems are perceived to have low priority compared with other health disorders, and treatment remains sub-optimal. Inherent in achieving and promoting better health care services for women is the need for better collaborative approaches to care. There is a need to identify and develop comprehensive interdisciplinary, multi-

professional strategies that improve the assessment and treatment of pelvic floor dysfunction in primary, secondary and tertiary settings. If this area of women's health care is to be improved nurses, whether community- or hospital-based, must play a front-line role in challenging and changing current practices. Education needs to be given greater priority and the development of a specialist pelvic floor nurse role explored. Such strategies could substantially influence a more effective approach to women's health care needs, result in improved treatment outcomes and liberate women from the embarrassment, social and sexual isolation, restriction to employment and leisure opportunities and potential loss of independence that multiple symptomatology can generate.

(2) O'Brien, J. (1996). "Evaluating primary care interventions for incontinence." SO: Nursing standard (Royal College of Nursing (Great Britain) : 1987)(23): 40-3.
Regular urinary incontinence affects one in six adult women. However, for the majority, good continence services are difficult to access and few primary care-based assessment and treatment facilities are available. A large randomised trial of assessment and treatment in primary care using a trained nurse was conducted in Somerset in 1990. This report summarises the methods and results of the initial study and reports the four-year follow-up results. The results show that 70 percent of women will gain long lasting benefit. This model of service provision will also benefit secondary care specialist services by ensuring that patients are appropriately managed in primary care before any possible referral.

(3) Salvesen, K. A. and S. Morkved (2004). "Randomised controlled trial of pelvic floor muscle training during pregnancy." BMJ 329(7462): 378-80.
Objectives To examine a possible effect on labour of training the muscles of the pelvic floor during pregnancy. **Design** Randomised controlled trial. **Setting** Trondheim University Hospital and three outpatient physiotherapy clinics in a primary care setting. **Participants** 301 healthy nulliparous women randomly allocated to a training group (148) or a control group (153). **Intervention** A structured training programme with exercises for the pelvic floor muscles between the 20th and 36th week of pregnancy. **Main outcome measures** Duration of the second stage of labour and number of deliveries lasting longer than 60 minutes of active pushing among women with spontaneous start of labour after 37 weeks of pregnancy with a singleton fetus in cephalic position. **Results** Women randomised to pelvic floor muscle training had a lower rate of prolonged second stage labour (24%, 95% confidence interval 16% to 33%; 22 out of 105 women were at risk (undelivered) at 60 minutes in the survival analysis) than women allocated to no training (38% (37/109), 28% to 47%). The duration of the second stage was not significantly shorter (40 minutes *v* 45 minutes, P = 0. 06). **Conclusions** A structured training programme for the pelvic floor muscles is associated with fewer cases of active pushing in the second stage of labour lasting longer than 60 minutes.

(4) Kirby, M. (2006). "Managing stress urinary incontinence -- a primary care issue." International Journal of Clinical Practice 60(2): 184-9.

Stress urinary incontinence (SUI) is a common condition in women, caused by anatomical problems related to factors such as age, parity, menopause and obesity. Depending on the clinical findings and on the severity of symptoms, SUI can be managed with conservative methods including pelvic floor exercises, vaginal cones and general lifestyle modification advice; or, it can be treated surgically with procedures such as Burch colposuspension, vaginal slings or tension-free tapes and injection of bulking agents alongside the urethra. SUI is greatly underdiagnosed, because many women are reluctant to consult their doctors about their condition. Department of Health guidelines are placing greater emphasis on primary care management of the condition and Primary Care Trusts (PCTs) to provide consistent, integrated continence care services. The availability of new, non-invasive treatment options, such as duloxetine, are likely to have a positive impact on the future of SUI management.

(5) Williams, K. S., R. P. Assassa, et al. (2005). "Clinical and cost-effectiveness of a new nurse-led continence service: a randomised controlled trial." British Journal of General Practice 55(518): 696-703.
BACKGROUND: Continence services in the UK have developed at different rates within differing care models, resulting in scattered and inconsistent services. Consequently, questions remain about the most cost-effective method of delivering these services. AIM: To evaluate the impact of a new service led by a continence nurse practitioner compared with existing primary/secondary care provision for people with urinary incontinence and storage symptoms. DESIGN OF STUDY: Randomised controlled trial with a 3- and 6-month follow-up in men and women (n = 3746) aged 40 years and over living in private households (intervention [n = 2958]; control [n = 788]). SETTING: Leicestershire and Rutland, UK. METHOD: The continence nurse practitioner intervention comprised a continence service provided by specially trained nurses delivering evidence-based interventions using predetermined care pathways. They delivered an 8-week primary intervention package that included advice on diet and fluids; bladder training; pelvic floor awareness and lifestyle advice. The standard care arm comprised access to existing primary care including GP and continence advisory services in the area. Outcome measures were recorded at 3 and 6 months post-randomisation. RESULTS: The percentage of individuals who improved (with at least one symptom alleviated) at 3 months was 59% in the intervention group compared with 48% in the standard care group (difference of 11%, 95% CI = 7 to 16; P<0.001) The percentage of people reporting no symptoms or 'cured' was 25% in the intervention group and 15% in the standard care group (difference of 10%, 95% CI = 6 to 13, P = 0.001). At 6 months the difference was maintained. There was a significant difference in impact scores between the two groups at 3 and 6 months. CONCLUSIONS: The continence nurse practitioner-led intervention reduced the symptoms of incontinence, frequency, urgency and nocturia at 3 and 6 months; impact was reduced; and satisfaction with the new service was high.

6) Swithinbank LV, Donovan JL, DuHeaume JC, Rogers CA, James MC, Yang Q et al: Urinary symptoms and incontinence in women: relationships between occurrence, age and perceived impact. *British Journal of General Practice*, 1999; **49**:897.

7) Hunskaar S, Lose G, Sykes D, Voss S. The prevalence of urinary incontinence in women in four European countries. *British Journal of Urology International*, 2004; **93**: 324.