

Bø, K., Øglund, G. P., Sletner, L., Mørkrid, K., Jennum, A. K. (2012). The prevalence of urinary incontinence in pregnancy among a multi-ethnic population resident in Norway. *BJOG: an International Journal of Obstetrics and Gynaecology*, 119, 1354-1360.

Dette er siste tekst-versjon av artikkelen, og den kan inneholde små forskjeller fra forlagets pdf-versjon. Forlagets pdf-versjon finner du på onlinelibrary.wiley.com: <http://dx.doi.org/10.1111/j.1471-0528.2012.03435.x>

This is the final text version of the article, and it may contain minor differences from the journal's pdf version. The original publication is available at onlinelibrary.wiley.com: <http://dx.doi.org/10.1111/j.1471-0528.2012.03435.x>

THE PREVALENCE OF URINARY INCONTINENCE IN PREGNANCY AMONGST A
MULTI-ETHNIC POPULATION RESIDENT IN NORWAY

Kari Bø, Professor, PhD, MS, Physiotherapist, Exercise scientist, Norwegian School of Sport Sciences, Department of Sports Medicine

Guro Pauck Øglund, MS Sport Science, Norwegian School of Sport Sciences, Department of Sports Medicine

Line Sletner, MD, Oslo University Hospital, Aker, Department of Endocrinology, Akershus University Hospital, Department of Paediatrics, University of Oslo, Department of Clinical Medicine

Kjersti Mørkrid, Physiotherapist, M Phil, Oslo University Hospital, Aker, University of Oslo, Department of Clinical Medicine

Anne Karen Jenum, Professor, PhD, MD, MPH, University of Oslo, Institute of Clinical Medicine and Institute of Health and Society Department of General Practice and Oslo University College, Faculty of Health Sciences

Corresponding author: Kari Bø, Professor, PhD, Norwegian School of Sport Sciences
Dept of Sports Medicine, PO Box 4014, Ullevål Stadion, 0806 Oslo, Norway, Phone:
+47 23 26 20 00, Fax:+47 22 23 42 20, E-mail: kari.bo@nih.no

Running title: Urinary incontinence in a multi-ethnic pregnant population

ABSTRACT

Objective: To investigate prevalence of urinary incontinence (UI) in a multi-ethnic population of pregnant women, and to analyse for possible associations of the known risk factors for UI in such a population.

Design: Population based cross-sectional study

Setting: All pregnant women in three administrative city districts attending the Child Health Clinics

Population and sample: Out of 823 women identified in first trimester, 722 (74%) agreed to participate in the study at 28 weeks of gestation. Inclusion criteria were; healthy women in gestational week ≤ 20 and able to communicate in Norwegian, Arabic, English, Sorani, Somali, Tamil, Turkish, Urdu or Vietnamese.

Methods: Differences between ethnic groups were tested by simple descriptive statistics. Associations were estimated by logistic regression analysis and presented as crude (cOR) and adjusted odds ratios (aOR).

Main Outcome Measures: Prevalence of UI as ascertained using the International Consultation on Incontinence Questionnaire- urinary incontinence - short form (ICIQ-UI SF).

Results: Prevalence rates of UI at 28 weeks of gestation were: 26% for women of African origin, 36% for women of Middle Eastern origin, 40% for women of East Asian origin, , 43% for women of South Asian origin and, 45% for women of European/North American origin.

The difference was significant between women of African and European/North American origins ($p=0.011$) and between women of African and South Asian origins ($p=0.035$). Age (aOR 1.05 (95% CI: 1.01-1.09)) and parity (aOR 2.34 (95% CI: 1.66-3.28)) were positively associated with the prevalence of UI in pregnancy. Women of African origin had significantly reduced odds for UI (aOR 0.42 (95% CI: 0.20-0.87)). East Asian and African women reported the highest perceived impact of UI in pregnancy.

Conclusions: A high prevalence of UI was found in a multi-ethnic pregnant population.

Key words: multi-ethnic, pregnancy, prevalence, urinary incontinence

INTRODUCTION

Female urinary incontinence (UI) is a common health problem, with prevalence rates varying between 32-64%¹. The most common form of UI in women is stress urinary incontinence (SUI), followed by mixed (MUI) and urge urinary incontinence (UUI)². In general, young women tend to have more SUI, while the prevalence of UUI and MUI increases with age¹. The huge variation in the prevalence rates of UI may be explained by the use of different definitions for UI, the application of different instruments/questionnaires and the different populations recruited in various studies¹.

Pregnancy and childbirth are known risk factors for development of female UI¹. In the Norwegian Mother and Child Cohort Study (N= 43, 379) the overall prevalence of UI during pregnancy was reported to be 58%³. The prevalence of SUI increased from 9% to 31% in nulliparous women during pregnancy, and from 24% to 42% in multiparous women. MUI showed a similar increase in both groups (from 6% to 16% and from 8% to 20%, respectively), while UUI remained almost unchanged (<5%)³. In a systematic review the pooled prevalence rates of UI during the first 3 months postpartum was found to be 33%⁴.

Most prevalence studies have been conducted in Caucasian populations. However, recent studies have found a lower prevalence of SUI in black and Asian women compared to white women¹. These differences have been hypothesised to be due to differences in the collagen and muscle morphology, but to date there is scant knowledge about the underlying mechanisms¹. However, few studies have compared prevalence rates between different ethnic groups living in the same country and exposed to the same health system using the same validated questionnaire to ascertain UI. So far, data on the prevalence of UI from a multi-ethnic pregnant study population is lacking¹. In 2004, the International Consultation on

Incontinence Questionnaire, Urinary Incontinence short form (ICIQ- UI SF) was introduced to be used for ascertaining this clinical outcome for future epidemiological studies on UI⁵.

The aim of the present study was to investigate the prevalence of UI in a multi-ethnic pregnant population using the ICIQ- UI SF, and to assess the possible associations between UI and ethnic origin, age, BMI, parity, education level, physical activity/exercise and reported urinary tract infections.

METHODS

Design

This study utilises cross sectional data from The STORK Groruddalen research program: a population-based cohort study of pregnant women and their offspring set up to assess the prevalence of gestational diabetes, other health related complaints, physical activity and obesity in a multi-ethnic pregnant population ⁶.

The study follows the Helsinki declaration and written informed consent was obtained from all study participants. The study protocol was approved by the Regional Ethics Committee (REK South-East) and the Norwegian Data Inspectorate.

Population

The study was set up at the various child health clinics in three administrative city districts in Groruddalen, Oslo, Norway, which is attended by the majority (75-85%) of pregnant women for antenatal care. The districts cover a population of about 82,000 people. The proportion of newborns with an ethnic Norwegian background in the three districts was 62%, 39% and 25%. All the study information material and questionnaires were translated into the following languages: Arabic, English, Sorani, Somali, Tamil, Turkish, Urdu and Vietnamese. These languages were chosen as they covered most of the languages spoken by the main ethnic minority groups in these districts. Women were eligible if they 1) lived in one of these districts, 2) planned to give birth at one of two study hospitals, 3) were less than 20 weeks pregnant, 4) could communicate in Norwegian or any of the above specified languages and 5) were able to give a written consent to participate in the study. Recruitment commenced in May 2008 and was completed in May 2010. Of the 1114 women invited to participate in the

study, 823 (74%) agreed to do so (response rate within each ethnic group: Europe/ North America: 82%, Asia: 71%, Middle East: 65%, Africa: 64%)⁶.

Procedure

Background variables were collected at inclusion (< gestational week 20, mean 15). The questionnaires cover information regarding socioeconomic factors, several aspects of ethnicity, medical history, UI, actual pregnancy, and modifiable factors such as physical activity and food intake⁶. A detailed interview guide was set up. Ethnicity may be defined as the social group a person belongs to because of shared culture, history, geographical origins, language, diet, physical, genetic and other factors⁷. For the purpose of this study, ethnic origin was defined by the participant's own country of birth, or mother's if the mother of the participant was born outside Europe or North America, and categorised as Europe (including Eastern Europe) and North America, South Asia, East Asia, Middle East (including North Africa and/Central Asia), Africa (except North Africa, mainly Somalia), and South and Central America.

Data collection was conducted by specially trained midwives undertaking personal interviews at the clinics. Professional translators were employed for these interviews if required. The ICIQ-UI SF questionnaire was administered to the study participants at the 28th (± 2) week of gestation. All questions in the ICIQ- UI SF questionnaire were translated to the above eight languages by the Interpreting and Translation Service at the Oslo City Services Department and quality controlled by bilingual professionals, as validated translations of the ICIQ were not available in most of these languages at the time when the study was conducted.

Outcomes

The primary outcome was overall prevalence of UI. Secondary outcomes were prevalence of SUI, UUI and MUI, as well as frequency of UI, amount of leakage, ICIQ-UI sum score and perceived impact. Covariates used for the data analysis were: age, parity (nulliparous versus multiparous), pre-pregnancy BMI, educational level (none/primary school, high-school or university/college), presence of urinary tract infection after enlisting into the study. (yes/no) and regular exercise i.e. having answered yes to one or more of the following four questions: participating in moderately intensive physical activity ≥ 30 minutes at least 5 days per week, moderately intensive activity at least 2.5 hours on at least 3 days per week, strenuous activity at least for 20 minutes 3 times per week or both strenuous and moderate intensity at least 3 times per week.

Questionnaire

The ICIQ-UI SF questionnaire was employed for this study⁵. The ICIQ questionnaire comprises three scored items with assessment of frequency, severity and perceived impact of incontinence in addition to an un-scored self-diagnostic item of type of UI. The sum-score was obtained by adding the scores from the three scored items. The lowest score if a respondent reports UI was 3, and the maximum score 21, with higher scores indicating worse urinary symptoms. Psychometric properties of the questionnaire have been tested, including its content, construct and convergent validity, reliability and responsiveness/sensitivity to change, and found to be robust for all these measures⁵.

Definitions used in the present article are according to the International Urogynecological Association (IUGA)/ International Continence Society (ICS) Joint Report on the Terminology for Female Pelvic Floor Dysfunction².

Statistical analyses

SPSS version 18 for Windows was used for data analyses. Background variables are presented as frequencies and percentages or means with standard deviations (SD). Differences between ethnic groups were tested using Chi-square, Kruskal-Wallis or ANOVA- Pairwise comparison. Mann-Whitney U test with Bonferroni adjustment and Scheffe test were used as post-hock tests. Logistic regression analyses were used to assess factors associated with UI. Only factors with p-value < 0.25 from univariable analyses were included in the multivariable analysis (age, parity, pre-pregnancy BMI, educational level, urinary tract infection). The results are presented as crude (cOR) or adjusted odds ratios (aOR) with 95% confidence intervals (CI). A p-value of < 0, 05 was considered statistically significant.

RESULTS

Of the 823 women in the STORK- Groruddalen cohort study, 772 (93, 8%) attended the antenatal visit at 28 weeks gestational and agreed to participate in the present study. ICIQ-UI SF data were available for 771, with the largest ethnic minority groups coming from South Asia (n=192) and the Middle East (n=117). Participants from Central and South America were excluded from the analysis due to the low number of participants from these two ethnic groups (n=10) and hence the final study sample size for data analysis was 761. Baseline characteristics did not differ between those who agreed to participate in the study (n=771) and those who refused participation (n=52) (data not shown). Background variables of the total study population and for the different ethnic groups are presented in Table 1. There was a significant difference in age between Europe/ North America and Africa ($p < 0, 05$) and South Asia ($p < 0,001$), and between Africa and East Asia ($p < 0, 05$).

The overall prevalence of UI was 41.7% (Table 2). At 28 weeks gestational, the prevalence rates of UI varied between the different ethnic groups, from 26% in African women to 45% in European/North American ($p = 0.011$). The difference in the prevalence of UI between African women (26%) and women from South Asia (43%) was also statistically significant ($p = 0.035$). SUI was the most prevalent form of UI in all the different ethnic groups (Table 2).

The degree and amount of urinary leakage, perceived impact of UI and the ICIQ UI-SF total score for the whole study group and the different ethnic subgroups is shown in Table 3. About 20% of the reported UI occurred at least 2-3 times/week in all the different ethnic groups except for African women (13.7%, $p = 0.056$ for differences in frequency of UI amongst the different ethnic groups). African women reported more moderate amount of urinary leakage compared to European/North American women, and fewer African women reported a small

amount of urinary leakage, but these ethnic differences were not statistically significant ($p=0.187$). However, there were statistically significant ethnic differences observed in the reported perceived impact of UI ($p<0.001$) and total ICIQ score ($p<0.001$), with African and East Asian women reporting highest values, and European/North American women the lowest.

Table 4 shows the logistic regression analysis with crude and adjusted OR for UI in the study. When adjusted for maternal age, pre-pregnancy BMI, parity, educational level, exercise and the presence or absence of urinary tract infection, African women had significantly lower odds of reporting UI in pregnancy compared to the other ethnic groups in the study. Increasing maternal age and parity was associated with significantly higher odds of UI in pregnancy.

DISCUSSION

As far as we are aware, this is the first report on the prevalence of UI in pregnancy ascertained using the ICIQ-UI SF questionnaire in a multi-ethnic population living in the same country. A high prevalence of UI (41.7%) was found at 28 weeks of gestation in our study population. The highest prevalence was present amongst European /North American women (45.4%) and the lowest prevalence was found amongst African women (25.5%). Significant ethnic differences on the perceived impact of UI and the total ICIQ scores were present. Although reporting lower prevalence rates of UI, women from East Asia and Africa reported higher perceived impact by UI and had highest ICIQ scores. Besides ethnic origin, other known risk factors such as parity and age were also associated with the prevalence of UI in this group of multi-ethnic pregnant women.

The strengths of the study include the use of a population-based study cohort, the universal application of a validated questionnaire to assess for UI at start of the third trimester of pregnancy, the use of trained midwives to conduct the standardised face –to-face interviews, the use of translators when needed and the conduct of multivariable analysis to control for known confounders. Other strengths are the high participation rate, the use of a multi-ethnic population and the minimal loss to follow-up in the study. Our efforts to adapt the study methodology to meet the needs of the women to participate in the study that are often excluded due to stringent research protocols, and to reduce barriers for inclusion of illiterate or recently immigrated women seemed to have been successful. Ethnic minority women attending antenatal and child health clinics appear to be fairly representative for healthy women of childbearing ages from these groups⁸. Forty percent of the total population living in this residential area have an ethnic minority background which is higher than for Norway as a whole. We deliberately chose to include residents from these residential areas to improve

our knowledge regarding the health of ethnic minority women and to explore possible differences in health requirements between them and the ethnic Norwegian/western population. As our sample of European/ North American women seems to be typical for urban Norwegian women, we are confident that we have made a valid comparison between these various ethnic groups. Migration is a global phenomenon and similar ethnic groups can live in several different countries and hence the results from this study may be relevant to the same ethnic groups residing outside Norway.

A limitation is the small sample size in two of the ethnic groups. Furthermore, we do not know if the ICIQ questionnaire and its translations are equally valid in all ethnic groups⁹. According to Coyne and Kelleher¹⁰ the translated version of the questionnaire should undergo a process of 5 steps to be recommended by ICIQ. Women attending the Child Health Clinics during the study period had ethnic origins from 83 different countries, and nearly all of them were first generation immigrants. Validated translated instruments were not available for most of the large ethnic minority groups in our population, and we did not have the resources to follow the recommended translation procedures for all the different ethnic groups. We employed a pragmatic approach with the use of professional services both for the translations of questionnaires and the interview process to ensure the same method of data collection for all ethnic groups.

Our results are in line with a previously reported smaller study with a response rate of 72% from one county in Norway which reported a prevalence of UI of 42% in pregnant women¹¹, but lower than the 58% found in the Norwegian Mother and Child Cohort Study³. The latter study, however, was hampered by a low (45%) response rate. It is interesting that the prevalence rate of the present study was similar to the smaller Norwegian study which

recruited only Norwegian speaking pregnant women and from another part of Norway. The proportion of women reporting SUI, UUI and MUI in our study are also in line with other studies, with most pregnant and young women reporting SUI as the type of UI in pregnancy¹. We found that the mean ICIQ-UI SF scores in the different ethnic groups were from 5.4 to 8.6. This corresponds to slight to moderate severity on Sandvik Severity Index according to Klovning et al¹².

Our multivariable analysis found that increasing age and parity were also associated with a higher prevalence of UI in this multi-ethnic group of pregnant women. This is in line with other prevalence studies from different countries¹. Ethnic origin from South Sahara Africa (mainly Eastern Africa/ Somalia) was negatively associated with UI during pregnancy in the present study. This corresponds with studies finding that Afro-Americans have lower prevalence of SUI than other groups¹. In our study the adjusted analyses showed that other factors did not help to explain the differences between ethnic groups. Africans might have stronger pelvic floor muscles (PFM) and collagen fibres than other ethnic groups^{13,14}, but we cannot further elaborate on this as we did not have any clinical data on the pelvic floor muscle anatomy or function in the present study. Due to small sample sizes from Africa, we did not have power to test for the presence of any heterogeneity in the data from women within the sub-Saharan African populations. Further research is needed to explore possible differences in a larger representative group of African women. Another limitation is that the response rate varied between ethnic groups with the highest participation rates from Europe/North America and lowest from women with Asian, the Middle Eastern and African ethnic origins. Low participation rate may cause selection bias and reduce the generalisability of the study. In the present study the overall participation rate was 74% , but this varied between 64% (in African women) and 82% (in European/North American women).

Wesnes et al.¹⁵ found that 31% of women reported the presence of UI at six months postpartum, and the presence of UI during pregnancy increases the risk (adjusted RR 2,3) of the same outcome subsequently. Moreover, Viktrup et al.¹⁶ found that the prevalence of SUI 12 years after first pregnancy and delivery was significantly higher in women with onset during first pregnancy or shortly after delivery compared with those without initial symptoms. This might suggest that UI in pregnancy is a high risk factor for long-term incontinence and might provide an opportunity for prevention. However, many women with UI rarely consult their healthcare providers with their symptoms. Hannestad et al.¹⁷ found that among the women who reported UI in the general population, only 26% had sought help, and only 50% of those with significant incontinence, defined as moderate/severe UI perceived their symptoms as troublesome and consulted their doctors. Many pregnant women might consider UI as a normal physiological pregnancy change and hence may not consider reporting it to their obstetrician or midwife as a health problem. Ethnic minority women may have even stronger barriers to report UI because of the possible language problems or cultural factors. It is important that general practitioners, obstetricians, midwives, nurses and physiotherapists are aware of the high prevalence of UI in pregnancy. Health professionals, who are in contact with pregnant women, should actively ask about the possible presence of UI, and advocate evidence-based treatment options. A Cochrane review¹⁸ concluded that pregnant women without prior UI who exercise their pelvic floor muscles were 56% less likely to experience UI in pregnancy and 30% less likely to report UI at six months postpartum. These results are encouraging, but none of the studies have been conducted in multi-ethnic populations with language and cultural barriers, and the development of effective clinical interventions for these ethnic groups may present new challenges. Hence, there is a need for high quality

randomised controlled trials on the use of antenatal pelvic floor muscle training in a multi-ethnic population on the prevalence and subsequent UI.

Word count: 3050

Acknowledgement: We thank the Norwegian Research Council and The South- Eastern Norway Regional Health Authority, The directorate of Health and collaborative partners in the City of Oslo, Stovner, Grorud and Bjerke administrative districts for funding of the study. Sincere thanks to Professor Bob Freeman, Consultant in Urogynecology Plymouth Hospitals NHS Trust and Peninsula Medical School UK, for English revision of the manuscript.

Funding: The STORK Groruddalen Research Program is funded by the Norwegian Research Council, The South- Eastern Norway Regional Health Authority, Norwegian Directorate of Health and collaborative partners in the City of Oslo, Stovner, Grorud and Bjerke administrative districts.

Ethics: Participation is based on written consent. The Regional Ethics Committee and The Norwegian Data Inspectorate have approved the study protocol.

Disclosure of interest: none

Contribution of authorship:

Kari Bø: had the idea of the UI prevalence study, provided the instrument for data on urinary incontinence and the questions on physical activity for the STORK Groruddalen Study, planned and contributed to the statistical analyses and wrote the manuscript.

Guro Pauck Øglund: participated in planning of and conducted the statistical analyses of the study. She revised the manuscript several times and approved the final version.

Line Sletner: participated in data collection of the study and planning of the statistical analyses. She revised the manuscript several times and approved the final version.

Kjersti Mørkrid: participated in data collection and planning of the statistical analysis of the study. She revised the manuscript several times and approved the final version.

Anne Karen Jenum: is the project leader and designed the STORK Groruddalen study. She participated in planning of the statistical analyses and revised the manuscript several times. She approved the final version.

References

1. Milsom, I., Altman, D., Lapitan M.C., Nelson, R., Sillen, U., Thom, D. (2009) Epidemiology of urinary (UI) and faecal (FI) incontinence and pelvic organ prolapse (POP). In: Abrams P., Cardozo L., Khoury S., Wein A. (Eds). Incontinence. 4th International Consultation on Incontinence. Committee 1. Health Publication Ltd, pp. 35-111.

2. Haylen, B.T., de Ridder, D., Freeman, R.M., Swift, S.E., Berghmans, B., Lee, J. et al. (2010) An International Urogynecological Association (IUGA)/ International Continence Society (ICS) joint report on the terminology for female pelvic floor dysfunction. *Neurourol Urodyn* 29 (1), 4-20.

3. Wesnes, S.L., Rortveit, G., Bo, K., Hunskaar, S. (2007) Urinary incontinence during pregnancy. *Obstet Gynecol* 109 (4), 922-928

4. Thom, D.H., Rortveit, G. (2010) Prevalence of postpartum urinary incontinence: A systematic review. *Acta Obstet Gynecol Scand*, 89 (12), 1511-1522.

5. Avery, K., Donovan, J., Peters, T.J., Shaw, C., Gotoh, M., Abrams, P. (2004) ICIQ: A brief and robust measure for evaluating the symptoms and impact of urinary incontinence. *Neurourol Urodyn* 23(4), 322-330.

6. Jenum, A.K., Sletner, L., Voldner, N., Vangen, S., Mørkrid, K., Andersen, L.F. et al. (2010) The STORK Grotuddalen research programme: A population-based cohort study of gestational diabetes, physical activity, and obesity in pregnancy in a multi-ethnic population. Rationale, methods, study population, and participation rates. *Scand J Public Health* 38 (Suppl. 5), 60-70.

7. Bhopal, R. (2007) Ethnicity, race, and health in multicultural societies. Oxford University Press, New York, NY.

8. Jenum, A.K., Mørkrid, K., Sletner, L., Vangen, S., Torper, J.L., Nakstad, B. et al. (2011) Gestational diabetes with the WHO and modified International Association of Diabetes and Pregnancy Study Group criteria: impact of ethnicity. A population-based cohort study. *Eur J Endocrinol*, Nov 2011, E-pub ahead of print

9. Hunt, S.M., Bhopal, R. (2004) Self-report in clinical and epidemiological studies with non-English speakers: The challenge of language and culture. *J Epidem Commun Health* 5 (7), 618-622.

10. Coyne, K., Kelleher, C. (2010) Patient reported outcomes: the ICIQ and state of the art. *Neurourol Urodyn* 29 (4), 645-51.
11. Mørkved, S., Bø, K. (1999) Prevalence of urinary incontinence during pregnancy and postpartum. *Int Urogynecol J*, 10(6), 394-398.
12. Klovning, A., Avery, K., Sandvik, H., Hunskaar, S. (2009) Comparison of two questionnaires for assessing the severity of urinary incontinence: The ICIQ-UI SF versus the incontinence severity index. *Neurourol Urodyn* 28(5), 411-415.
13. Skinner, D.P., Crichton, M.B. (1963) Stress incontinence - a comparative study. *Med Proc* 9, 189-194.
14. Knobel, J. (1975) Stress incontinence in the Black female. *S Afr Med J* 49(12), 430-432.
15. Wesnes, S.L., Hunskaar, S., Bo, K., Rortveit, G. (2009) The effect of urinary incontinence status during pregnancy and delivery mode on incontinence postpartum. A cohort study. *BJOG* 116(5), 700-707.
16. Viktrup, L., Rortveit, G., Lose, G. (2006) Risk of stress urinary incontinence twelve years after the first pregnancy and delivery. *Obstet Gynecol* 108(2), 248-254.
17. Hannestad, Y.S., Rortveit, G., Hunskaar, S. (2002) Help-seeking and associated factors in female urinary incontinence. The Norwegian EPINCONT study. *Epidemiology of Incontinence in the County of Nord-Trøndelag. Scand J Prim Health Care* 20(2), 102-107.
18. Hay-Smith, J., Mørkved, S., Fairbrother, K.A, Herbison, G.P. (2008) Pelvic floor muscle training for prevention and treatment of urinary and faecal incontinence in antenatal and postnatal women. *Cochrane Database Syst Rev*. Oct 8 ;(4):CD007471. Review

