Chlamydia trachomatis testing policy and control: the neglected role of the anorectal site

Citation for published version (APA):

Document status and date:
Published: 01/01/2015

Document Version:
Publisher's PDF, also known as Version of record

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record.
- People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher’s website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

Link to publication

General rights
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the “Taverne” license above, please follow below link for the End User Agreement:
www.umlib.nl/taverne-license

Take down policy
If you believe that this document breaches copyright please contact us at:
repository@maastrichtuniversity.nl
providing details and we will investigate your claim.

Download date: 03 Aug. 2019
Valorisation of the thesis
The research project presented in this thesis has a clear social and economic relevance, in addition to scientific relevance.

Sexually transmitted infections (STI) clinics provide free and anonymous testing to various risk groups such as youngsters <25 years of age, commercial sex workers (CSWs), swingers, men who have sex with men (MSM), people suffering from symptoms and people with >3 sex partners. Targeted care is delivered by trained nurses who take medical and sexual history and provide testing for sexually transmitted infection (STI) s such as Chlamydia trachomatis (CT) and Neisseria gonorrhoeae (NG). Long term complications of STIs can be ectopic pregnancy, infertility, pelvic inflammatory disease and urethritis. Municipalities and the government finance this specialized STI care (nurses, medical doctors); however research is externally funded through various sources such as scholarships.

Testing guidelines are provided by the National Institute for Public Health and the Environment (RIVM). These guidelines are established by a national group of experts consisting of medical doctors, epidemiologists, and policy makers etc. who evaluate literature and use their own expertise. This thesis provides an evaluation of the effectiveness of the current procedures to control CT. Current guidelines comprise standard urogenital testing in every consultation. Anorectal testing is performed after report of anorectal symptoms and/or anal sex, that is, selective testing on indication. In the studies in this thesis, routine universal anorectal screening was used instead of selective testing on indication in MSM, swingers and women. We found that half of anorectal infections would have been missed using selective testing, in women this was even two thirds. This means that of all women with an anorectal STI, only one third reported anal sex or symptoms. Therefore, current guidelines lead to insufficient case management of MSM, swingers and women with an anorectal STI infection. The societal impact of this insufficient case management is substantial, as anorectal STI prevalence is 10% among STI clinic visitors. STIs have a public health and clinical impact, in terms of symptoms and transmission. The clinical impact of non-LGV anorectal STIs is limited as only 5% reported symptoms. The majority of MSM have a rectal-only infection, while the majority of women have a concurrent anorectal urogenital infection. In this thesis theories are presented to explain this difference, for example autoinoculation with vaginal secretions in women, especially since the majority of women with an anorectal infection do not report anal sex. These anorectal infections can facilitate transmission between individuals by anal sex, as is suggested in MSM. Possibly, these anorectal infections in women could also lead to reinfection within an individual, causing reproductive health problems. Moreover, anorectal STI facilitate HIV transmission, which is primarily a problem in MSM. Altogether, the clinical impact of anorectal infections should not be underestimated. HIV infection and reproductive health problems contribute to health care costs in the Netherlands. Yearly, 55,500 CT diagnoses are made; 32,000 in women and 23,500 in men. The risk of inferti-
lity by a chlamydia infection in women is estimated differently by several studies. Mathematical studies estimated a probability of 10%, with a range of 2-35 %. However, a review reported a lower risk of 0.1 to 4.6%. The cost effectiveness of routine universal anorectal screening, as described in this thesis, is estimated at $1,400 by avoiding serious complications.

Target groups

The results and conclusions presented in this thesis are of importance for the whole sexual active population who have unprotected sexual contact. Especially MSM and young women should be aware of the common occurrence of anorectal infections. For MSM, mainly because of high transmission potential by frequent changing of partners. For women, because of the potential complications due to untreated anorectal infections, even when anal sex is not reported. The study population in this thesis was STI clinic attendees, which implicates a high risk group for STI. However, STI are also frequently diagnosed at the general practitioner (GP), as described in this thesis. In our local STI clinic, policy has already changed as an implication of the research in this thesis; MSM and swingers are routinely universally tested for anorectal STI. Before the occurrence and importance of anorectal infections can be highlighted, the focus should be on STI testing in general, as this is the first step in the process. Collaborating and sharing knowledge with other STI care providers, such as gynaecologists and GPs, would improve STI care in general. Policy makers are also a target group regarding their role in designing and implementing testing guidelines which are used nationwide by STI care providers. At last, local policy makers at the municipality play a role as STI research and policy evaluation is not financed by the municipality. This makes research and policy evaluation subjective to external funding, which is not a continuous flow of funds.

From activities and innovation to planning and realisation

Research (1)
Research is needed for actual change of standard operating procedures, especially on an international level. Research leads to answers, but even more to questions. Recently, funding has been granted to carry out an innovative spin off study, which will provide answers to the remaining questions. The aim of the study is obtain insight into the acquisition and transmission of CT between and within persons. Urogenital and/or anorectal CT positive women will be followed over time after CT treatment. Women included in the study will take 24 consecutive swabs in a timeframe of 12 weeks, 12 vaginal swabs and 12 anorectal swabs. Multiple questionnaires will provide information on sexual risk behaviour throughout the study.
Research (2)
Communicating research results is a key item for valorisation. When an article is published, a brief summary in Dutch is sent by email to a multidisciplinary group of people working in the same field, for example, GPs, researchers and policy makers. Moreover, results are communicated by our academic website, including a short interview with the researcher. These outreach methods could be improved by launching a website about our research group. This website should include a short background of all researchers, published papers and ongoing research projects. A request for this was made by the communications department.

Policy
It is important that policy makers are aware of the findings in this thesis for (1) re-evaluate literature and consider improving testing guidelines and (2) providing funding for future research. Moreover, once a year a national expert meeting is held at the National Institute of Public Health and the Environment. Policy makers, medical doctors and researchers are present at this meeting to present research and discuss findings with each other. Moreover, policy makers visited our setting to talk about practice and research. This leads to connections for future research and thereby to a better chance for funding.

In my opinion, research should become a part of standard care in the STI clinic in contrast to current situation in which additional funding has to be acquired to carry out research/policy evaluation. Ideally, research is financed by the municipalities in addition to standard care. This would make STI research, which in fact often is an evaluation of care, accessible to both (1) those we want to help (clients) and (2) those funding (municipalities). If there would be a budget accessible for research within care, results could be easily passed to clients by various ways such as the public health service website, outreach to schools and local folders spread by the public health service or municipality. At the moment financial resources are too small to carry out these kinds of actions to promote the research among (possible) clients and policy makers. When research is part of standard care, the researchers are obliged to give feedback to the municipality about the research. This works two ways, results are presented to local policy makers and local policy makers can see the importance of research for practice and stimulate it by financial resources. At the moment a folder with testing rates and positivity rates among various risk groups is already given to local policy makers, research could be added to this document. However, I think it is important to start with presenting results to local policy makers which will lead to personal interaction and mutual interest.

Influence public debate/media
Since the subject of this thesis comes with taboos and stigma, it is necessary to carry out results and make the subject STI testing a topic for discussion. This will have impact on policy makers; STIs are a problem, and will always be if investments are not made, as well as our target group of people we want to reach for testing but have barriers to do so. Publications have already
Valorisation of the thesis

attracted media attention and local television regularly interviews medical doctors and nurses about actual topics in standard care. However, this could also be done for research and even on a national level, potentially in collaboration with other researchers in the field. We have never actively approached media to carry out our research because often more research is needed before we can make statements about it. Therefore, it is not an appropriate source to carry out results of research in early stages since this could lead to misinterpretation. However, the media often approaches our organisation first when an article is published. This indicates that our research is of interest to journalists and the community. In this way, attention is given to STIs in the public media which reaches a large group of individuals. To carry out this thesis in a broad way, an official press release will be issued when this thesis is printed. In addition to the printed thesis, a summary leaflet in A4 will be created by a professional copywriter to summarize the key points in a concise way. This leaflet is written in non-academic Dutch language, which makes it readable for a wider community.

Spin off (1)
Training and education can draw attention to STI among youngsters, which is a well known target group. Since end of 2012, schools are required to pay attention to sexuality and sexual diversity by the government. Schools also have the task of ensuring a safe social climate in and around the school and to promote good citizenship. A website and curriculum named ‘Sekswijzer’ have been developed with general information about STIs, sexual diversity, sexual violence and defensability. Ideally, a regional campaign could be carried out to promote STI testing among youngsters. This group would benefit the most as they are a high risk group for STI, including anorectal STI. To promote research findings and make this information appealing to youngsters, social media could be helpful. We plan to open a twitter account to communicate research results using a humorous style, which will appeal to youngsters.

Spin off (2)
Besides the STI clinics, GP’s also provide STI testing; they serve about one third of the population. Informing GPs and involve them in future research projects would have the largest impact on STI control. At the moment, several innovative research projects are set up which involve collaboration with GPs, such as partner warning after a diagnosed STI and projects on hepatitis. This could be extended to CT, especially anorectal CT, as those data are limited for GPs. Publishing articles in national journals such as ‘Nederlands tijdschrift voor geneeskunde’ and ‘Huisarts en Wetenschap’ can have an impact, but not all GP’s read it and even smaller part would change their practice. It would be best to start with informing by email, since time is scarce for GPs, or visit some practices to present our results. Eventually presenting results to the expert group which formulate the GP guidelines would have the largest impact. Together with GPs, gynaecologists should be informed and involved in a similar way, since they perform a substantial share of CT tests in this region. In conclusion, collaboration with STI care providers in any way is beneficial for STI control.