Who Is at Risk of Catching *Chlamydia trachomatis*? Identifying Factors Associated with Increased Risk of Infection to Enable Individualized Care and Intervention

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At the 10th of December 2010 Helena Carré, Department of Clinical Medicine and Public health/Dermatology and Venereology, Umeå University, defended her doctoral thesis. Faculty opponent was Associate Professor Hans Fredlund, Clinical Microbiology, Örebro University Hospital. Main supervisor was Elisabet Nylander, Associate Professor, and assistant supervisor was Professor Urban Janlert. The whole thesis can be found at: http://urn.kb.se/resolve?urn=urn:nbn:se:umu:diva-37871

Chlamydia trachomatis (CT) can cause infertility and is the most common sexually transmitted infection (STI) of bacterial origin in Europe. Surveys in seven countries estimated a population prevalence of 1.4–3.0% in people 18 to 44 years. Approximately 87% of those diagnosed in Sweden are 15–29 years. Since 1997, with the exception of 2009–2010, despite all efforts, CT has increased steadily in many European countries including Sweden. That made us investigate risk factors associated with catching STIs, especially CT.

In Sweden, partner notification is mandatory by law when a patient is diagnosed with CT. Centralised partner notification, performed by a few experienced counsellors, and evaluation of the sexual history for at least 12 months back in time, shows superior results compared to other studies. Phone-interviews are a good option in remote areas. "The Västerbotten model" for partner notification fulfils these criteria and our evaluation has functioned as a model for changing recommendations of partner notification in Sweden. Preventing CT by primary prevention such as information and counselling is, however, still of great importance.

We investigated whether it was necessary to test for CT in the throat. We found that patients testing positive for pharyngeal CT neither had more symptoms or signs nor a sexual history that differed from others. We therefore believe that we will find most or all of these patients by conventional testing of urine and cervical/vaginal samples.

We wanted to further identify risk factors among patients attending a clinic for sexually transmitted infections to enable individualized care depending on risk. None or inconsistent use of condoms with new/temporary partners in combination with having at least one new/temporary partner within the past 6 months could identify persons with risk behaviour and at increased risk of CT (re)infection. Additional information about whether the condom was used during the whole intercourse did not add any risk of infection. A drop-in reception is a good contribution to an opportunistic screening approach. The rate of CT infected is high and the clinic attracts men and individuals ≥25 years old at risk of infection, groups which usually have a reduced test rate. The mean age was 28 years and 58% of the patients were men. The figure of correct condom usage is very low indicating the need for risk reducing counseling also in this grown-population.

Among adult STI patients anxiety was common and depression uncommon. Neither was linked to high risk sexual behaviour nor ongoing CT infection. Hazardous alcohol consumption, however, was common and linked to anxiety and high risk sex. We conclude that preventive work can not only focus on STI prevention, but must consider the high frequency of hazardous alcohol consumption, which probably is contributing to sexual risk behaviour.