Mew’s Hospital, London, UK; University of Birmingham, Birmingham, UK; University College London, London, UK; Health Protection Agency, London, UK; UK model was stratified by behaviour, and was parameterised by behaviour data from key UK and treatment levels. Uncertainty was accounted-for using Latin discrimination status. Many such MMC may reduce GUD through a reduction in these anaerobic vs 70% of uncircumcised men (p ¼ 0.010). Reported penile coital injuries were more common among men with Anaerococcus spp. (85% vs 57%, p ¼ 0.01), and condom use was less common (50% vs 71%, p ¼ 0.01). There was no difference in these bacteria by ulcer location. Conclusions Fusobacteriales and Anaerococcus spp. may colonise genital ulcers that develop from a mechanism related to circumcision status. Many such “ulcers” may be epithelial disruptions that are traumatic in origin. These bacteria have cytotoxic properties that may ulcerate or exacerbate pre-existing minor epithelial disruptions. MMC may reduce GUD through a reduction in these anaerobic bacteria.

Background The WHO estimates that 170 million people worldwide are infected with Hepatitis C. In the context of HIV co-infection, rapid point-of-care tests gain importance in both the developing and developed countries. Moreover, in the light of the Food and Drug Administration’s approval of the Oraquick point-of-care test for Hepatitis C for use in the USA, the accuracy of these tests is relevant.

Objective We conducted a systematic review and meta-analysis of the literature examining the sensitivity and specificity of all rapid point-of-care tests used to diagnose incident or prevalent Hepatitis C, with an attention to involvement of industry in reporting of results.

Methods Two reviewers conducted independent searches of five databases between the years of 1995 and 2010. Bayesian meta-analysis was conducted accounting for the use of imperfect reference standards (sensitivity and specificity ranges of 90%–100% were assumed) in the assessment of index tests. The quality of all included full-text studies was assessed using the QUADAS and STARD checklists, with a focus on reporting of conflict of interest with industry.

Results A total of seven studies were identified from the database searches, of which five were conducted in developing settings. Eight index tests were examined including Oraquick, HCV Tri-Dot, HCV Bidot, Thera Ricerca, SM-HCV, Onecheck, Goldspot and Accurate. Sensitivity of all index tests ranged from 45% to 100%, while specificity ranged from 93% to 100%. Oraquick reportedly had the highest accuracy, with sensitivity ranging from 99% to 100% and a specificity of 100%. However, the authors of the study reported a financial relationship with Orasure Technologies Inc., the makers of Oraquick. Although pooled sensitivity of all tests was high at
Hepatitis C infection. More independent testing is required to be able to make

determine HBsAg 94.76% (90.08 to 99.23%) 99.54% (99.03 to 99.953%) 96.77% (92.92 to 99.26%) 99.89% (99.55 to 100%)

<table>
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<tr>
<th>Subgroup</th>
<th>Sensitivity (95% CI)</th>
<th>Specificity (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Including Oraquick study</td>
<td>92.72% (72.11 to 99.93%)</td>
<td>99.88% (99.56 to 100%)</td>
</tr>
<tr>
<td>Excluding Oraquick study</td>
<td>77.11% (45.49 to 96.61%)</td>
<td>99.99% (99.82 to 100%)</td>
</tr>
</tbody>
</table>

Abstract P3-S5.03 Table 1 Results of bayesian meta-analysis: diagnostic accuracy of index tests used to detect Hepatitis C

**P3-S5.04 THE DIAGNOSTIC ACCURACY OF RAPID POINT OF CARE TESTS USED TO DIAGNOSE HEPATITIS B: A BAYESIAN META-ANALYSIS**


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**Background** More than 350 million people are infected with the Hepatitis B virus worldwide, with four million new cases every year. The prevalence of the Hepatitis B virus is highest in developing countries and which investigated 22 different index tests. When studies were pooled, the Determine HBsAg test showed a combined sensitivity of 98.76% and a specificity of 99.94%. Other HBsAg tests showed a lower combined sensitivity (96.77%) but comparable specificity (99.89%). The Amrad HBsAg test showed a combined sensitivity of 98.04% and a specificity of 99.04%, while the tests detecting antibody to HBsAg showed a combined sensitivity of 97.77% and a specificity of 96.08%. Studies were of poor-moderate quality with QUADAS scores ranging from 3 to 10/14 and STARD scores ranging from 7 to 14/25 see Abstract P3-S5.04 table 1.

**Conclusion** The Amrad and Determine tests show the highest pooled accuracy. However, this could be explained by the fact that the other subgroups included studies examining different index tests with a wide range of accuracies. There is a need for more consistently designed studies, using ideal reference standards recommended by the CDC or Health Canada.

Abstract P3-S5.04 Table 1 Results from bayesian meta-analysis of diagnostic accuracy of hepatitis B point-of-care tests

**P3-S5.05 RAPID POINT OF CARE TESTING FOR TEN SEXUALLY TRANSMITTED DISEASES**

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**Background** Delays in the reporting of STD testing sometimes result in inappropriate patient care where a patient must be called back in for treatment. Some STDs may be missed because not all specimens are tested in a comprehensive manner. We are developing a multiplex point of care test to fill this clinical need. This fully automated system is capable of detecting ten PCR targets from a single specimen in <1 h.

**Methods** A Sexually Transmitted Disease (STD) Panel was designed for the FilmArray device to detect the following organisms: Chlamydia trachomatis (CT), Neisseria gonorrhoeae (GC), Treponema pallidum, Trichomonas vaginalis, Mycoplasma genitalium, Ureaplasma urealyticum, Ureaplasma parvum, Anaplasis ducreyi, and herpes simplex viruses (HSV-1 and 2). Multiple PCR primers for each of these organisms were multiplexed and validated with the appropriate laboratory strains or plasmids.

**Results** Three hundred twenty-four subjects have been enrolled from the Salt Lake Valley Health Department STD clinic patient population, providing 600+ specimens for analysis. Ninety-nine clinical specimens have been tested so far. The STD panel test results were compared to the standard CDC recommended clinical tests run in parallel on duplicate specimens. Standard testing included gram staining, CT/GC amplification, wet mount examination, viral culture, and serum syphilis IgG. Sample types included urine (44), vaginal/cervical swabs (7), urethral swabs (5), ulcer swabs (7), oral swabs (20), and rectal swabs (16). Concordance between the new STD panel and standard testing was: C trachomatis (79/81, 95%), N gonorrhoeae (81/81, 100%), HSV1 (6/6, 100%).