

sorting. LCs were pulsed with fluorescent tagged HSV and co-cultured with a subset of (BDCA3+) dermal DCs.

**Results** All infected LCs showed markers of apoptosis at 18 hr p.i. Approximately 50% of BDCA3+ DCs co-localised with infected LCs and in some cases fragments of infected LCs were observed within the dermal DC cytoplasm. Such colocalization of HSV antigen bearing LCs and dermal DC subsets, was also detected within biopsies of initial genital herpes lesions. The mechanism of interaction of apoptotic LCs and dermal DCs, and uptake by phagocytosis are being determined.

**Conclusion** Thus, a viral antigen relay takes place where HSV infected LCs slowly die by apoptosis during migration to the dermis and are taken up by dermal DCs by phagocytosis for subsequent antigen presentation. This provides a rationale for targeting these dermal DCs for mucosal or perhaps intradermal HSV immunisation.

**Disclosure of interest statement** No pharmaceutical grants were received in the development of this study.

#### LB1.6 DIAGNOSTIC TEST ACCURACY OF THE ALERE PIMA POC CD4 ANALYZER (PIMA™) IN FIELD SETTINGS: A META-ANALYSIS

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**Introduction** Point-of-care CD4 testing attracts global interest particularly in resource-constrained settings where it is needed the most. We evaluated the diagnostic performance (DP) of the most commonly used POC CD4 test in field settings, the Pima™, as compared to flow cytometry at CD4 threshold of 350 cells/ $\mu$ l.

**Method** A systematic literature search and data extractions were performed electronically. Meta-analysis was conducted applying a bivariate multi-level random-effects modelling approach to provide pooled estimates of sensitivity and specificity, and positive and negative likelihood ratios ( $\pm$ LRs) of the Pima™. In producing estimates, the model accounts for correlation between test sensitivity and specificity and between-study heterogeneity in test performance.

A covariate extended model was also explored to test for difference in DP between capillary and venous blood. Diagnostic statistics and sensitivity analyses were used to examine impacts of outlier bias. User-written STATA programs, MIDAS and Generalised Latent and Linear Mixed Modelling (GLLAMM) were used to undertake statistical analyses.

**Results** The search identified 13 studies with data currently available for meta-analysis (6 capillary, 7 venous). Pooled sensitivity and specificity of Pima™ were 0.92 (95% CI: 0.88–0.95) and 0.87 (95% CI: 0.85–0.88) respectively with  $\pm$ LRs indicating strong DP (+LR: 7.0, 95% CI: 6.1–7.9; -LR: 0.09, 95% CI: 0.06–0.13). The extended model showed some difference in DP by blood sample type (venous vs. capillary): sensitivity (0.94 vs 0.89), specificity (0.86 vs 0.87); however, these differences were jointly marginally non-significant (Wald  $\chi^2(2) = 4.77, p = 0.09$ ).

**Conclusion** Our study is the first to present pooled data on in-field test performance of the Pima™. The Pima™ was found to have strong DP in field settings. The difference found in DP by blood sample type, although not statistically significant, may have significant clinical implications which warrant further analysis once more data are available. The recommendation on use of one blood sample type (venous) over the other (capillary) could hinder the scalability of the test.

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## Poster Presentations

### P01 - Sexual health of Indigenous and minority ethnic populations

#### P01.01 DEADLY SEXY HEALTH; SEXUAL HEALTH PROMOTION IN THE VICTORIAN ABORIGINAL COMMUNITY CONTROLLED HEALTH SETTING

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The rate of sexually transmissible infections in the Victorian Aboriginal population remain at higher rates than non-Aboriginal Victorians. Adding to this burden is the lack of a dedicated Aboriginal sexual health workforce. The Victorian Aboriginal Community Controlled Health Organisation (VACCHO) developed the “Deadly Sexy Health Kit” as a capacity building resource for Aboriginal health workers and other Koori workers to deliver blood borne virus, sexuality, sexual and reproductive health education workshops in their local communities.

The Deadly Sexy Health Kit contains resources that VACCHO and partner organisation have developed around sexuality, sexual health, respectful relationships and blood borne viruses. It comprises of a series of flexible tools to ensure that the workshops are engaging, interactive and on message, including lesson plans, DVDs, activities and discussion points that are culturally relevant.

The development of the kit was in response to Aboriginal Health workers calling for resources and skills in sexual health and blood borne viruses for community health days, youth camps, women’s and men’s health activities. The Deadly Sexy Health Kit development was an opportunity for Aboriginal workers to be the local faces of Sexual health activities.

The success of the Deadly Sexy Health Kit is specific training to maximise the tools in the kit. Five training sessions were held across Victoria for VACCHO workers that included an introduction to the purpose and effective use of the DVDs, activity cards and develop facilitation skills. Regional workers were trained together so they can support each other and target strong local referral and support pathways for community members.

Evaluation will occur six months after implementation. It is anticipated that this kit will move towards a locally based Sexual health education model that strengthens capacity of Aboriginal Community Controlled Health Services and their Communities.

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