

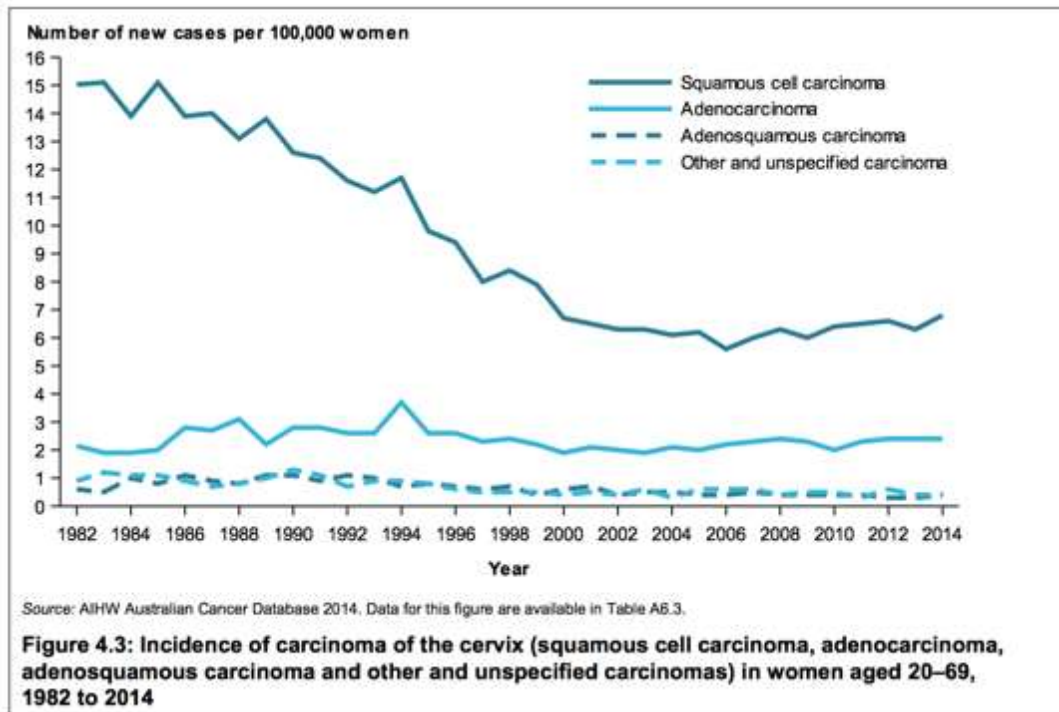
# Cervical Cancer in the Era of the CST

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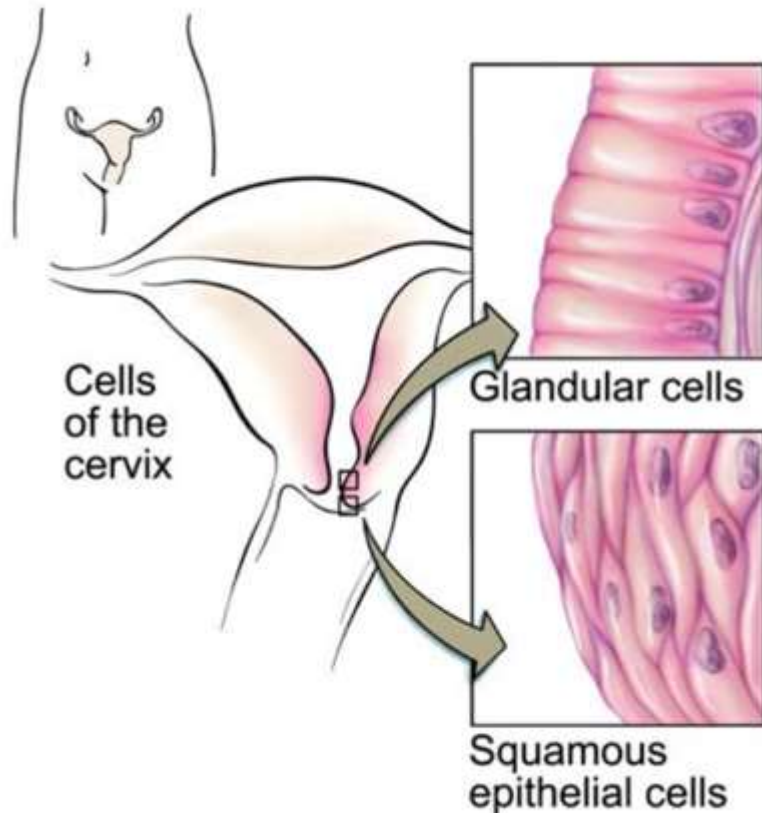
- Certified Gynaecological Oncologist
  - Endometrial cancer
    - Robotic hysterectomy and sentinel LN biopsy
  - Ovarian cancer
    - Radical Debulking, Multidisciplinary Care
  - Cervical cancer
    - Radical hysterectomy and lymph node dissection
  - Vulvar cancer
    - Radical vulvar surgery, sentinel LN biopsy
- Minimally invasive Gynaecology
  - Hysterectomy
  - Menorrhagia
  - Ovarian masses
- Complex open surgery
- Dysplasia

# Impact of organized pap screening

- Incidence and mortality halved
- Mostly due to a change in squamous cell carcinoma



# Adenocarcinoma of the cervix



- 25% of cervical cancer in Australia
- 99.7% are HPV related, 78% due to HPV 16 and 18
- HPV testing superior to pap smears for detection Adenocarcinoma in situ
  - Sampling
  - Rarity means difficult to interpret cytological changes (1:10,000 pap smears, possible AIS 1:300-1:5000 pap smears)
- Minimal impact of traditional pap smear screening
  - 2 per 100,000 women per year

# Future of adenocarcinoma in Australia

Projected impact of HPV vaccination and primary HPV screening on cervical adenocarcinoma: Example from Australia



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## ARTICLE INFO

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## ABSTRACT

Cytology-based cervical screening appears to have had a limited effect on the incidence of adenocarcinoma, however HPV vaccination and HPV-based screening will likely play a role in reducing future burden. Using Australia as an example, we estimated the future burden (2015–2040) of adenocarcinoma in the absence of other interventions; and the impact of HPV vaccination (introduced 2007) and HPV-based screening (commencing 2017).

Future burden was estimated considering underlying trends in adenocarcinoma, using national data (1982–2010). The relative reduction in adenocarcinoma due to HPV vaccination and HPV-based screening was derived from observed clinical data.

Adenocarcinoma incidence rates have been increasing since the early-mid 2000s (average annual increases from 3.0%(25–49 years)–8.1%(20–24 years)). If these trends continue, rates would increase from 1.4 to 2.4/100,000 in < 50 years and from 2.2 to 4.4/100,000 in 50+ years by 2040. Taking into account coverage, HPV vaccination will reduce 2040 incidence by 36–39%, mainly in women < 50 years (61% reduction). Taking into account uncertainties in trends and screening effectiveness, HPV-based screening will reduce incidence by an additional 19–43%, mainly in women 50+ years (additional 30–68% reduction). Together, these interventions will reduce incidence by 55–81%.

- Modelling suggests impact of HPV vaccination 61% reduction
- HPV based screening 19-43%
- Recent cases of adenocarcinoma,
  - found due to the new program
  - Prevented in future?

# Patient A

- 34yo Para 1
- CST 2018 HPV 18, LBC LSIL
- Colposcopy bx X2 LSIL
- Repeat CST 2019 HPV 18, LBC NEG

- Colposcopy non specific changes
  - Biopsy adenocarcinoma in situ
- Repeat colposcopy
  - Second opinion
  - ?microinvasive carcinoma
  - For Cone biopsy

# Cone biopsy pathology

- 21 x 6mm Adenocarcinoma with heavy LVSI in background of adenocarcinoma in situ



- Radical hysterectomy BSO bilateral PLND
- Negative margins, parametria and lymph nodes
- No adjuvant therapy required

# Lesson

- Underscores need for repeat CST at 12 months
- In old paradigm recommendation with negative smear would have been for repeat Pap in 2 years

## Patient U

- 40yo
- Same sex relationship
- No pap smear >10yrs
- Both her and her partner felt cervical screening was not necessary
- Asymptomatic
- GP encouraged her to have self collected HPV test
- HPV 16

# Colposcopy

- 1-2cm invasive lesion on anterior cervical lip
- Histo: Adenocarcinoma

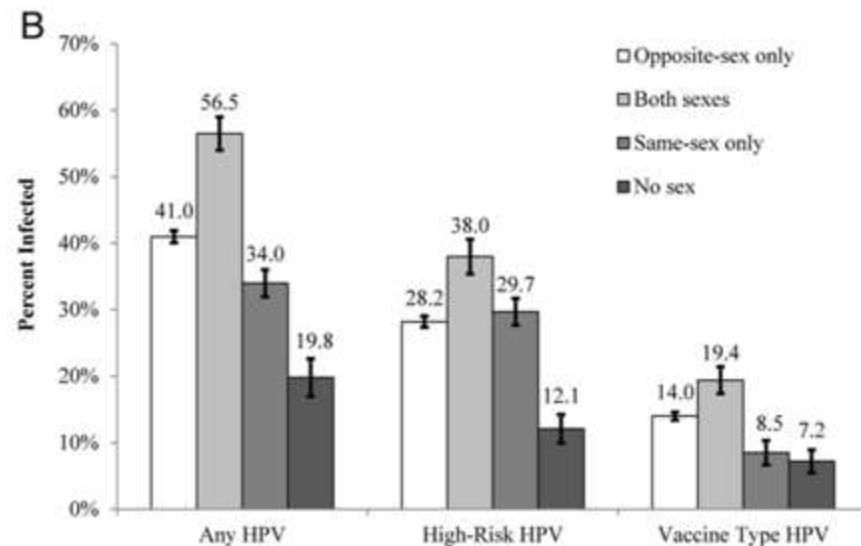
# Management

- PET and MR cancer localized to cervix
- Radical hysterectomy, bilateral salpingectomy, bilateral pelvic lymph node dissection

# Pathology

- Stage IB1, adenocarcinoma, negative lymph nodes, negative parametria, negative margins
- No further treatment required

# Women who have sex with women



**Figure 2** Human papillomavirus (HPV) infection among women by two operational definitions of sexual behaviour: (A) applies the aggregated definition; (B) applies the disaggregated definition. Bars indicate the SEs.

- US Study of HPV self collection in non heterosexual women
  - 29.7% infected with HR HPV even those who identify as only having sex with women
- Up to 41% of women who have sex with women believed they do not need to have cervical screening
- Standard screening should be offered to all women. Who have sex with women



# HPV self collection

- Women  $\geq 30$  yrs and never screened
- Or  $\geq 30$  yrs and  $\geq 2$  yrs overdue for screening
- More effective than reminder letters for under screened women
- High compliance with follow up

NATIONAL CERVICAL SCREENING PROGRAM GUIDELINES

## HOW TO TAKE YOUR OWN HPV TEST

VCS Pathology



STEP ONE	STEP TWO	STEP THREE	STEP FOUR
<ul style="list-style-type: none"><li>• Lower your underwear</li><li>• Twist the red cap and pull out the swab</li><li>• Look at the swab and note the red mark closest to the soft tip</li></ul>	<ul style="list-style-type: none"><li>• Get in a comfortable position</li><li>• Insert the swab into your vagina, aiming to insert up to the red mark</li></ul>	<ul style="list-style-type: none"><li>• Rotate the swab gently 1 - 3 times</li><li>• Then remove the swab</li><li>• It should not hurt</li></ul>	<ul style="list-style-type: none"><li>• Remove the swab and place it back in the tube</li><li>• Return the tube to your doctor or nurse</li><li>• If you have any questions, ask your doctor or nurse</li></ul>

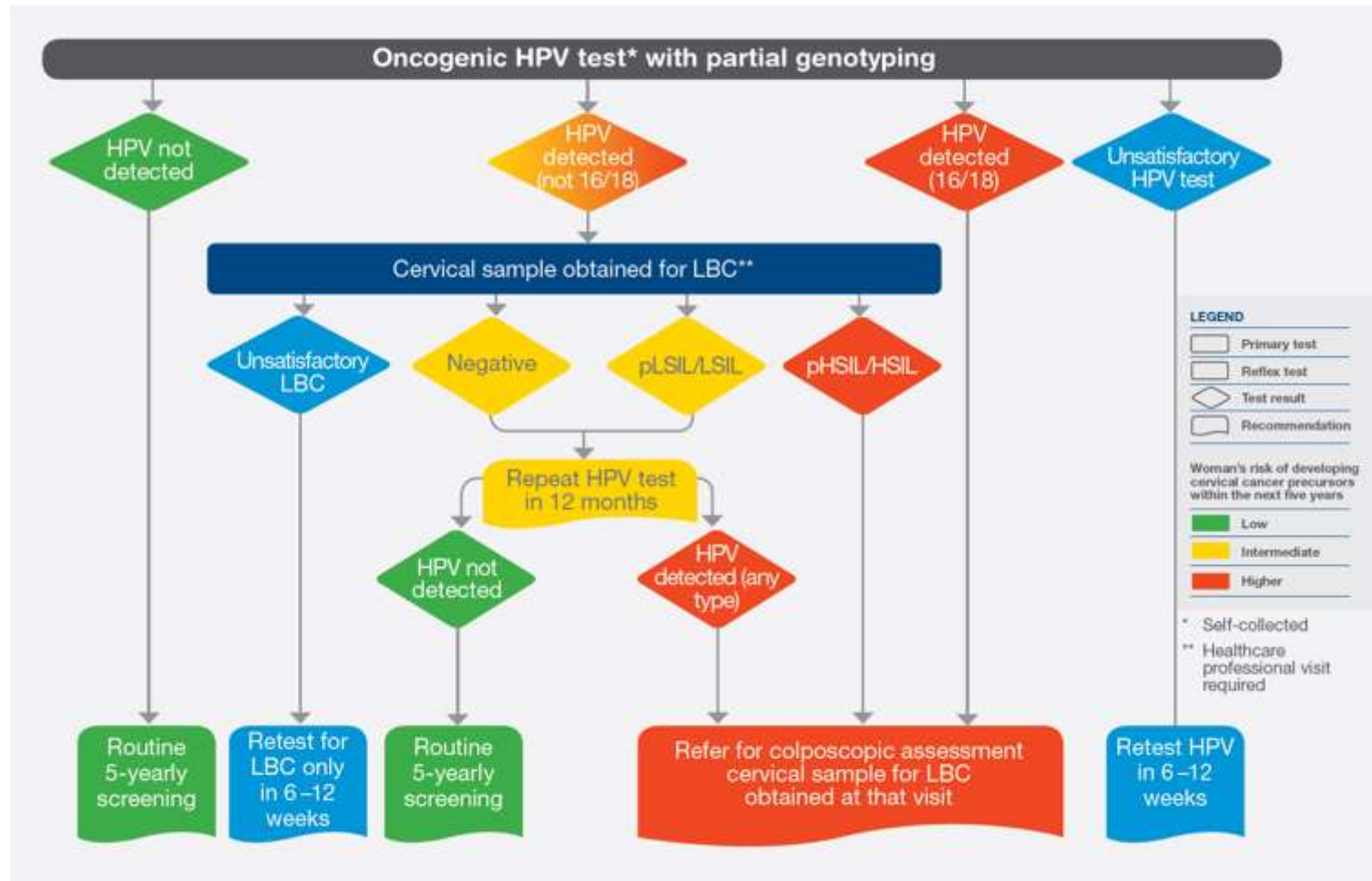
Your Practitioner will provide you with a swab

[www.vcspathology.org.au](http://www.vcspathology.org.au)

\* This image is adapted from Garner CC et al. The diagnosis of cervical intraepithelial neoplasia and related precancerous lesions by self-collected low vaginal swabs in women screened by self-collected vaginal swabs. *Journal of Clinical Microbiology*. 2014; 52(4):1215-1219.

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## Lessons

- Women who have sex with women should be recommended to have standard cervical screening as per guidelines for general population
- Self collection may remove barriers for certain patients

## Patient L

- 39yo
- Para 3, 3X CS
- Spotting in late first trimester
- Cotest performed opportunistically in ED, N cervical appearance
- HPV 18 POS, HSIL, Possible Adenocarcinoma in situ

## Screening history

- LSIL >15 yrs ago, resolved
- Last four pap smears negative
- Last smear nearly 4 years ago

# Colposcopy

- 14+6/40
- Frondlike lesion, ?invasion protruding from os biopsied
- Adenocarcinoma 5x5mm
- MRI no lesion visible

## Cone biopsy

- Patient accepting of option to provide more information, accepts small risk of mid trimester loss
- Cone biopsy performed at 19 weeks
  - EBL 500mL
  - Pathology Adenocarcinoma in situ only positive endocervical margin
  - Plan to observe and treat post partum

## Progress 33 weeks

- Clinically obvious lesion on anterior lip
- MRI 34/40
  - Lesion of ~15mm greatest dimension, no parametrial extension, no positive lymph nodes
- Decision for Caesarean Radical hysterectomy, bilateral pelvic lymph node dissection
- Performed at 36 weeks

# Pathology

- Multifocal lesion up to 25mm horizontal extension, depth of invasion 5mm
  - Negative lymph nodes
  - Stage 1B2
  - No further treatment required
- 
- Mother and baby well with no complications, home day 5



# Lessons

- Bleeding cotest
- Screen during pregnancy, don't wait until post partum (cytobroom NOT cytobrush, NOT combi-brush)

# Opportunistic screening

- None were women of low socioeconomic status
- All likely to be cured
- Stage shift
- Impact on survival
  
- Future
  - Prevent (Primary, HPV vaccine)
  - Treat as premalignancy (HPV screening)

Thank You