

**Large Loop Excision of the
Transformation Zone (LLETZ): Is the
6 month outcome related to the
biopsy volume?**

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Declaration of interests –
none

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Background

- LLETZ is the most common excisional treatment for CIN
- Aim to excise in entirety with depth $>7\text{mm}$

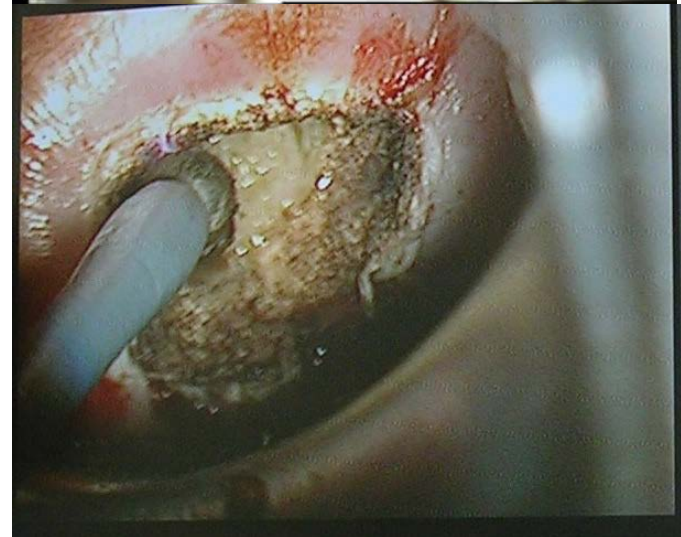
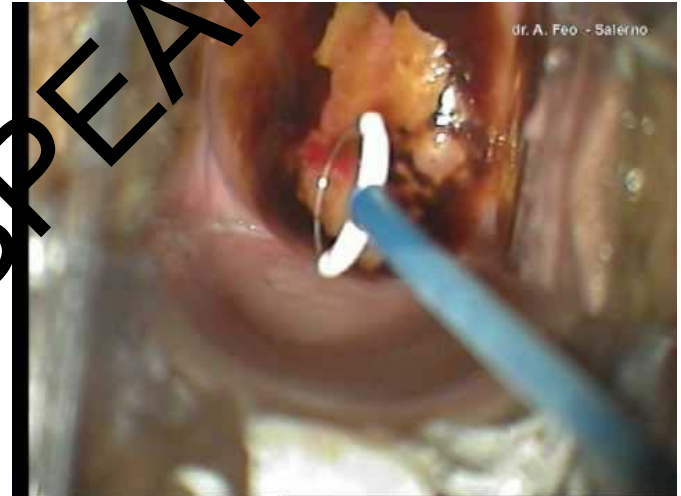


Image from google

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The risk

- Women treated for CIN increased risk preterm labour (RR 1.96-2.19) Bruinsma 2011
- Inherent risk preterm labour if attend colp (8.8% vs 6.7%) Castanon 2012
- Also higher risk larger depth:
 - Small <10mm (7.5% CI 6-8.9%)
 - Medium 10-14mm (9.6%)
 - Large 15-19mm (15.3%)
 - V large >20mm (18%)

[Castanon 2014]



Large volume also a problem

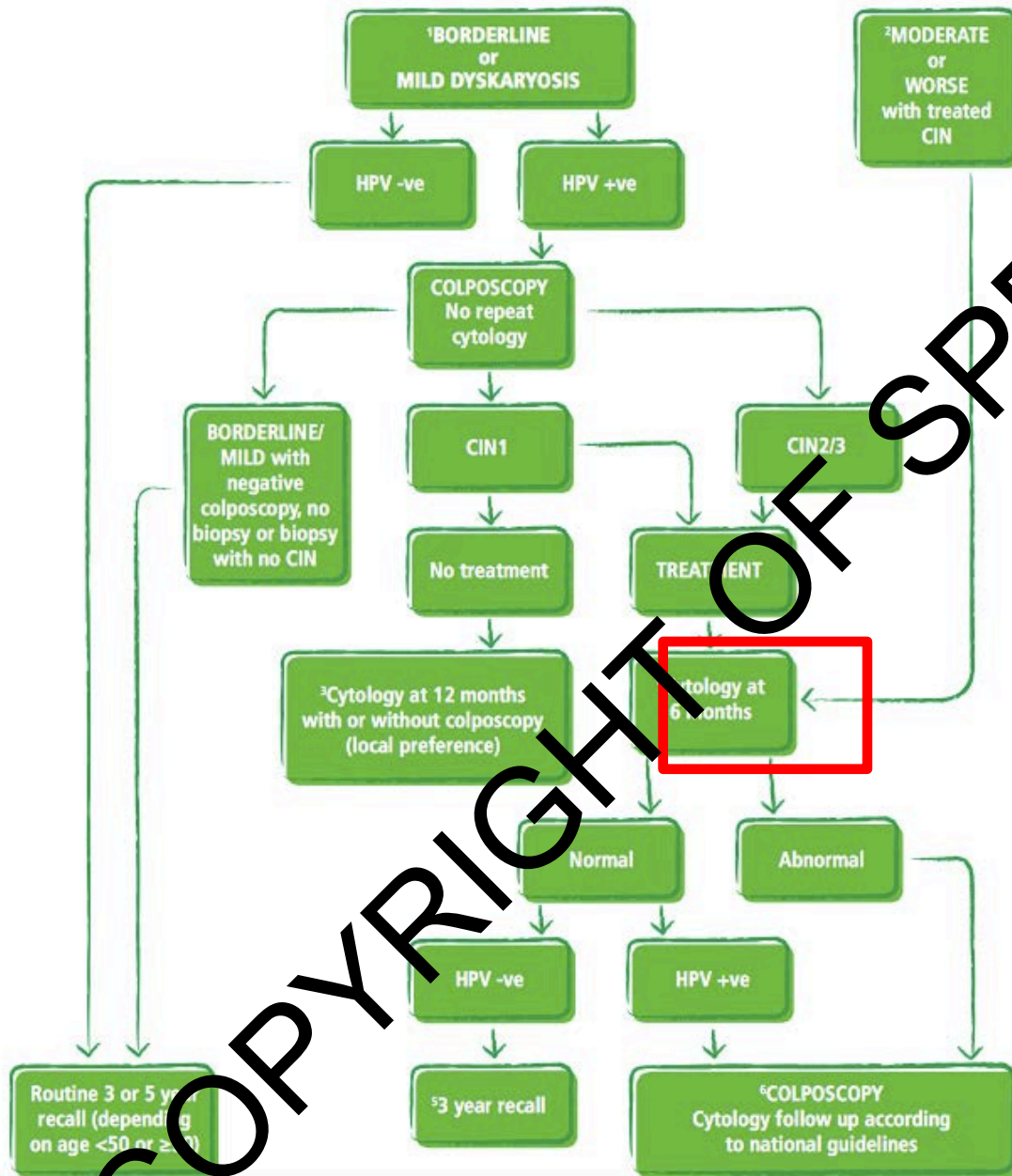
Table 3| Adjusted relative and absolute risk of preterm birth by volume of tissue excised

Volume of excisional treatment	No (%) cases	No (%) controls	Relative risk* (95% CI)	Absolute risk (%)
Punch biopsy	210 (27.3)	274 (33.0)	0.97 (0.75 to 1.27)	7.3
Small volume ($\leq 1.77 \text{ cm}^3$)	229 (29.8)	297 (35.8)	1 (reference)	7.4
Medium volume ($1.78\text{-}2.65 \text{ cm}^3$)	95 (12.4)	90 (11.2)	1.40 (1.02 to 1.93)	10.4
Large volume ($\geq 2.66 \text{ cm}^3$)	165 (21.5)	98 (11.8)	2.07 (1.56 to 2.76)	15.4
Unknown volume	69 (9.0)	71 (8.6)	1.26 (0.88 to 1.79)	9.4

*Adjusted for parity, index of multiple deprivation, maternal age at delivery, and study site.

[Castanon 2014]

What is effect on TOC?



Flowchart from <http://www.cancerscreening.nhs.uk>

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Aims

- Assess whether the 6 month test of cure outcome is related to the LOEZ biopsy volume.

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Methods

- Retrospective study Nov 13- Nov 15
- 227 women attended Test of cure clinic
- Excluded women if either lack of volume data or lack of outcome data. Also excluded LLETZ histology low grade disease.
- Collect details
- Calculate vol = $\frac{1}{6}$ pie x length x width x depth
- Analyse data



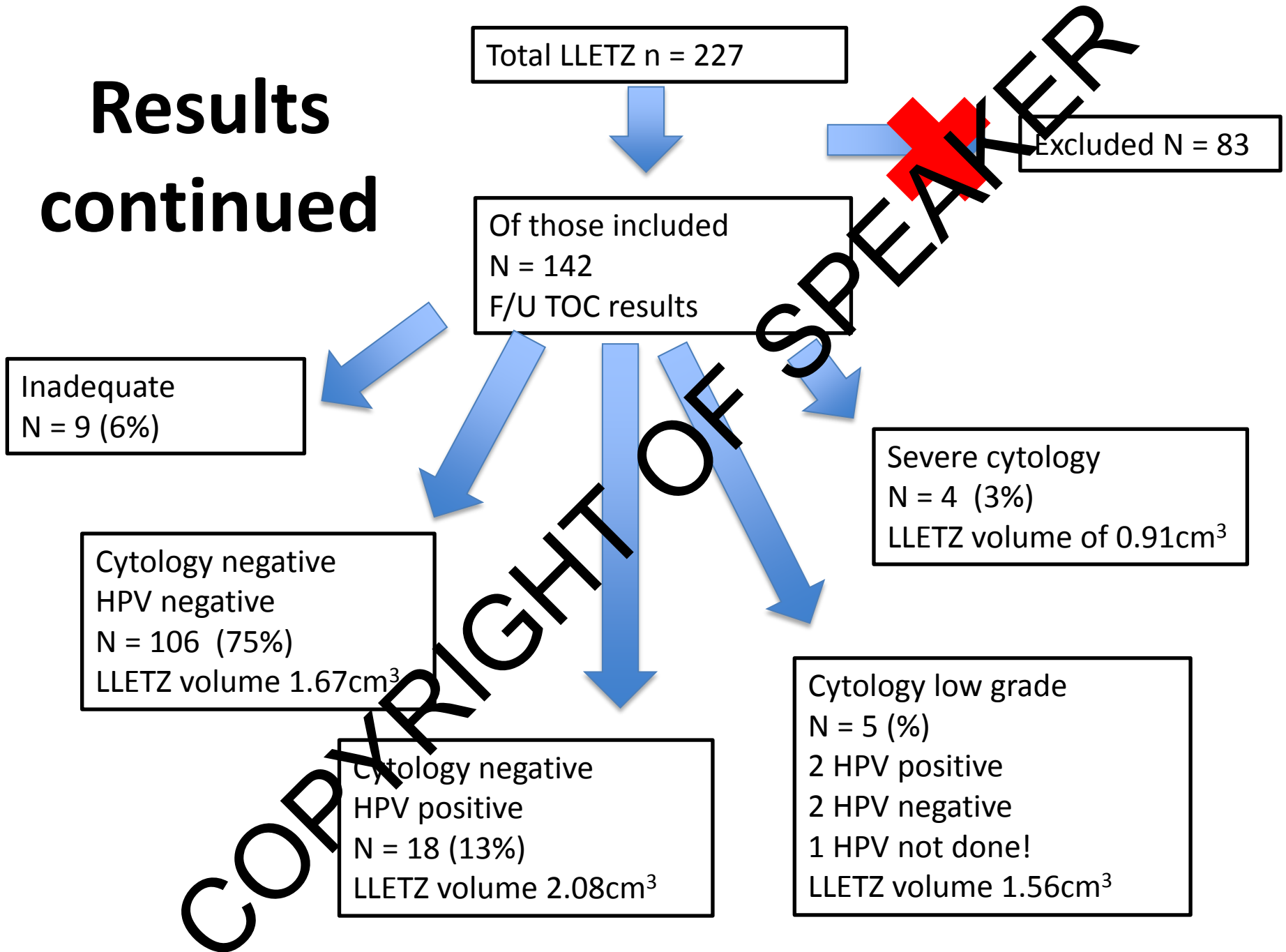
Results

- 227 women attended the clinic
- Exclude:
 - 4 women no dimensions
 - 22 lack of outcome data
 - 57 low grade histology
- Remaining 142 women
 - Median 32yo (range 23-61 yrs)
 - 1% immunosuppressed
 - 11% smokers

- 29% more one LLETZ sample
- Average volume 1.66cm³ (small)
- Excision rates: 43% complete, 28% incomplete and remaining n/a or could not be assessed

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Results continued



Conclusions

- Overall the rates of residual high-grade disease following LLETZ remains reassuringly low (3%).
- Suggests that residual disease more common if v small volume LLETZ. As group so small, makes it difficult to test strength association.
- Biological plausibility

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Any questions?

