

Conservative Management of CIN-2: A Retrospective, Single-Centre Study.

K Lestak¹, S Mahgoub¹, J Eletu-Odibo¹, P Pathiraja¹, M Quaranta¹

1: Department of Gynaecological Oncology, Cambridge University Hospitals NHS Foundation Trust, Cambridge, UK

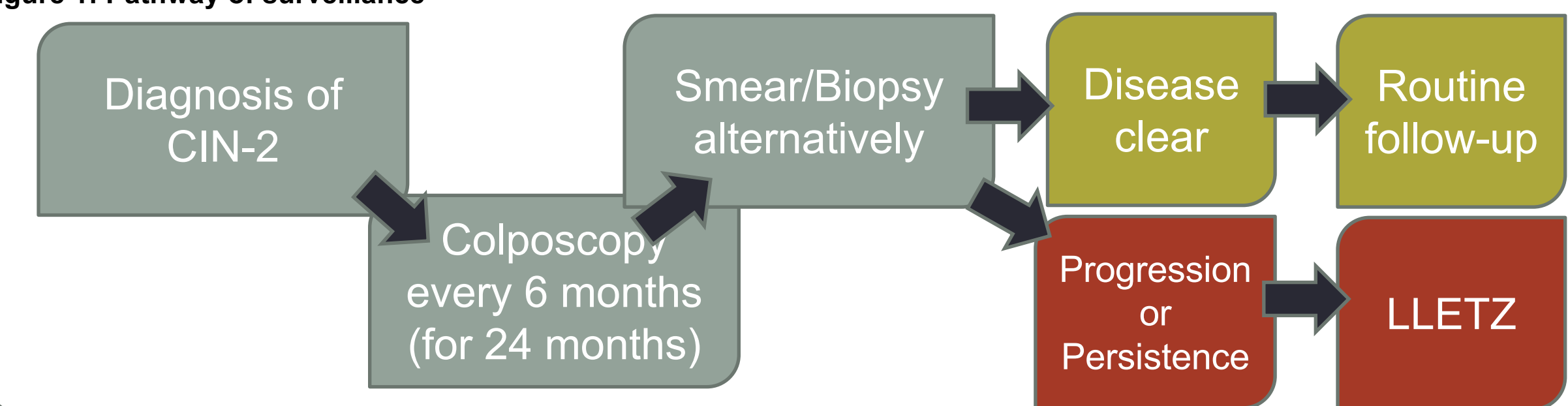
Introduction

- Management of cervical intra-epithelial neoplasia-2 (CIN-2) has historically centered around treatment with large loop excision (LLETZ) and other excisional methods^{1,2}.
- With increasing data surrounding LLETZ as a risk factor of pre-term delivery and pregnancy loss, novel measures to reduce this risk are becoming vital.
- Conservative surveillance presents one such method of management. However more needs to be ascertained as to the safety, feasibility and adherence to such protocols.
- Here, we present a retrospective analysis from a conservative management programme done at a tertiary centre unit in the UK.

Methods

- Retrospective data was analysed from at a single tertiary gynaecology specialist centre.
- This examined all people undergoing conservative management of CIN-2 between 2017-2021. This management protocol has been summarised in Figure 1.
- **Primary outcome** was divided into three measures: successful regression and discharge back to routine follow-up (three or five yearly dependent on age), progression or persistent of disease requiring intervention, and drop-out or loss to follow-up.
- Further **secondary outcomes** included pregnancy outcomes, and sub-group analysis of smokers and those aged over 35 years old.
- Statistical analysis was completed using R Studio Ver 1.2.5033.

Figure 1: Pathway of surveillance



Results

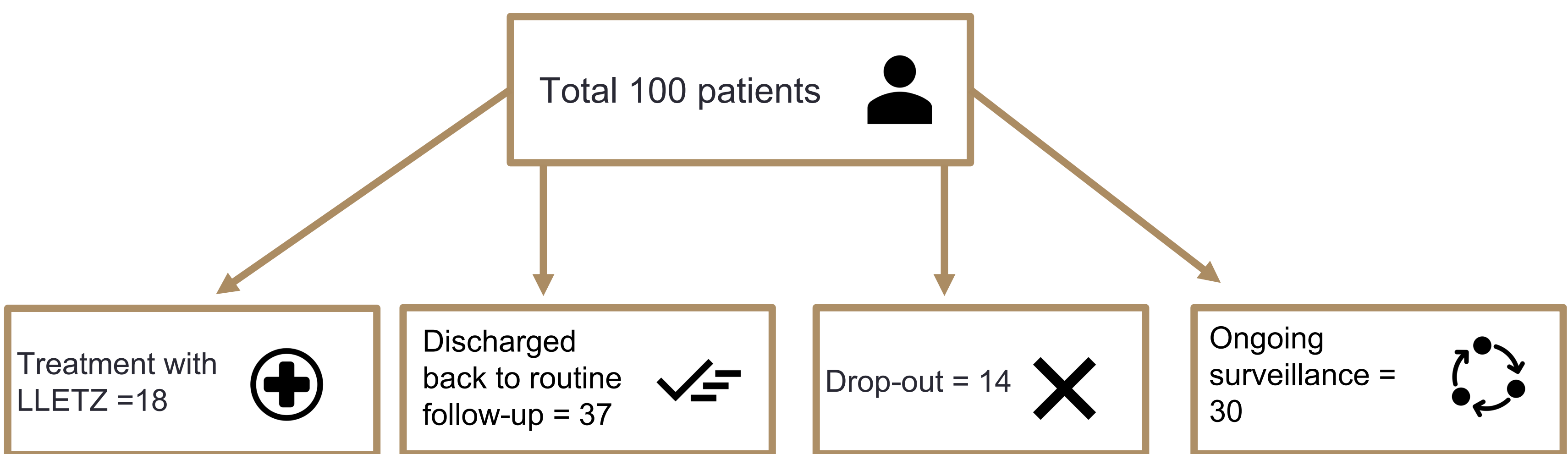
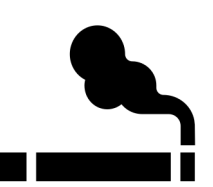


Figure 2: Diagram summarizing primary outcome results

- Primary outcomes are summarised in Figure 2. In total 100 patients underwent conservative surveillance.
- Seven were aged over 35, and 24 were either current or former smokers.
- 18 underwent LLETZ. six of these were for patient choice versus progression or persistence of disease.
- No women had progression to malignancy. Five progressed to CIN-3.
- 15 women dropped out prior to completion of the 24-month period. The average time to drop-out was 12.42 months (1-22). Six of these underwent treatment prior to drop-out, with no progression of disease found in any subject. A further five did not attend scheduled follow-up appointments.



15 women became pregnant either during or after conservative management. A total of 12 live births occurred, with three first-trimester losses. A single pre-term birth occurred for unrelated reasons.



Smokers and those over 35 were not significantly more likely to require intervention then the rest of the population (p=1.0000 and p=0.5936 respectively).



23 women had routine community smears, 12 of these were HPV negative. A further seven patients had low grade disease, and two showed borderline changes. A single patient had moderate changes and one woman returned with high grade disease requiring LLETZ.

Discussion

- Rates of regression within our population mirror that of previous research around conservative management^{1,3}.
- 17% (12/70) of women who had completed the 24-month regimen underwent LLETZ for progression or persistent of disease. This is also in keeping with other studies, even with the inclusion of women over the age of 35^{1,3}.
- When examining choice of patient population, it was found that smokers or those aged 35 and over (i.e., those more at risk of progression) did not have increased rates of more severe disease.
- A total of 14 patients (20%) were either lost to follow-up or dropped out of surveillance throughout the two-year period. 43% (6/14) underwent LLETZ prior to cessation of the programme. More work needs to be done in interrogating why drop-out occurs, and whether further measures could be introduced to reduce this. This could centre around a change of interval between appointments from six to twelve monthly.
- Further intervention is also required on targeting those that are lost to follow-up, in order to ensure treatment prior to cessation of monitoring versus loss alone.

Conclusions

- Conservative management represents a safe management to those of reproductive age.
- Therefore, critical reductions in preterm birth and pregnancy loss are possible.
- Patient drop-out is a concern. Further data should focus on patient selection for wider intervals to improve adherence rates.

References

1. M. Skovgaard, E. Lyng, J. Suhr and G. Napolitano, "Conservative management of women with cervical intraepithelial neoplasia grade 2 in Denmark: a cohort study," *British Journal of Obstetrics and Gynaecology* (BJOG), vol. 127, no. 6, pp. 729-736, 2019.
2. K. Lycke, L. Petersen, P. Gravitt and A. Hammer, "Known Benefits and Unknown Risks of Active Surveillance of Cervical Intraepithelial Neoplasia Grade 2," *Obstetrics and Gynaecology*, vol. 139, no. 7, pp. 680-686, 2022.
3. Godfrey, M., Nikoipoulos, M., Garner, J. E., Alob, T. R., Mukhopadhyay, D., Rains, J. S., Harper, C. A., & Wuntakal, R. (2016). Conservative management of cervical intraepithelial neoplasia grade 2 (CIN2) in women under 30 years of age: A cohort study. *European journal of obstetrics, gynecology, and reproductive biology*, 228, 267-273. <https://doi.org/10.1016/j.ejog.2018.07.018>