

An evaluation of the impact of the Covid-19 pandemic on the number needed to treat for diagnosing malignant melanoma.

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Introduction

- The Covid-19 pandemic led to a sudden and significant reduction in face-to-face consultations in dermatology departments nationwide.
- Measuring the impact this had on services and subsequently on patient outcomes is challenging.
- The “number needed to be treated” was first proposed in a paper by A.Laupcais et al published in the New England Journal of medicine in 1988.
- The number needed to treat is the number of patients who must be treated in order to prevent one adverse event.
- In our study we wanted to assess this metric in relation to the number of benign lesions we excise in order to diagnose one melanoma.
- By calculating our “baseline” or “pre pandemic” number needed to treat we aimed to gain insight into the impact of reduced patient numbers on our melanoma service.

Methods

- We performed a retrospective analysis of the histopathology database to calculate the number of benign pigmented lesions excised by two consultants in our centre, between March and September in 2018 and for the same time period in 2020.
- Lesions classified as benign were benign naevi, dysplastic naevi, solar lentigines and seborrheic keratoses.
- The number of malignant melanomas diagnosed during the same time periods was calculated also.

Results

- Results are displayed in Figure 1. Red dots representing NNT.
- 255 benign pigmented lesions were excised between March and September 2018.
- 30 malignant melanomas were diagnosed during the same period. This reflects a number needed to treat (NNT) of 8.5.
- Figures for 2020 representing the first 7 months of the Covid 19 pandemic showed a significant reduction in the number of benign lesions excised (98).
- There was a smaller reduction in the number of melanomas diagnosed (24). The NNT was 4.

Discussion

- In our centre, pigmented lesions are excised exclusively when there is clinical suspicion for a diagnosis of melanoma.
- The lower NNT during the pandemic raises the possibility that some melanomas were missed due to lower volumes of patients being seen.
- However, there was only a 20% reduction in melanoma diagnoses between 2018 and 2020 and the fact that the NNT did not remain static points to the possibility that triaging became more effective during the pandemic.
- Further research is needed to assess how useful this metric is in evaluating our clinical accuracy and what impact the triaging model in place has on it.

Figure 1 : NNT 2018/2020

