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Short communication

Additional cost in personal protective equipment to NHS services during COVID-19: a review of the expense incurred by Aneurin Bevan Healthboards Maxillofacial unit over a one-year period to meet current clinical guidelines

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Abstract

COVID-19 has led to increased levels of personal protective equipment (PPE) in surgical specialties. Aneurin Bevan Healthboard Oral and Maxillofacial unit sees approximately 2,808 patients per annum and to meet current guidelines this added PPE is estimated to cost an extra £32,292. Whilst this helps improve safety for clinicians and patients, we also recommend that evidence is regularly reviewed to assess what PPE is justified at different stages of viral prevalence.

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Introduction

The National Health Services (NHS) faces huge financial pressures, which will likely worsen in the current COVID-19 climate. Current guidelines relating to oral and maxillofacial surgery recommend increased levels of personal protective equipment (PPE) to reduce viral transmission, helping to protect patients and staff.

The aim of this project is to highlight the additional cost of this PPE to NHS services during COVID-19. As a profession it is incumbent on us to regularly review evidence in order to assess what PPE is justified at different stages of viral prevalence.

Material and methods

Data was taken retrospectively from Aneurin Bevan Healthboard to assess how many clinical procedures were carried out over a one-year period. This was then multiplied by the additional cost of PPE required due to COVID-19 to estimate an overall cost. Choice of PPE was made in accordance with the latest British Association of Oral and Maxillofacial Surgeons (BAOMS) guidelines,^{1,2} which recommends FFP2 masks for non-aerosol generating procedures and FFP3 masks for aerosol generating procedures (AGP).

The increased PPE cost was calculated per patient, where every clinician and assistant each wore an additional surgical sterile gown and FFP2 or FFP3 mask. Increased amounts of clinical waste were also calculated, with an increase of one bag for about every three patients. The added cost of the disposal was also included (Fig. 1).

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Fig. 1. (Left) Example of clinician wearing full personal protective equipment prior to intraoral surgery. (Right) FFP3 mask sourced from 3M.

Table 1
Itemised cost of personal protective equipment cost per patient.

Per item	Cost per patient (£)*
Sterile surgical gown x2	2
FFP2/FFP3 mask x2	6.5
Disposal of orange waste bag	3

* PPE prices correct as of June 2019.

The total number of patients seen per annum was calculated by multiplying the mean number of patients per list (3) by the total number of lists per week (18). This equates to 2,808 patients seen per year for intraoral surgery.

Results

The added cost of PPE due to current COVID-19 guidelines totaled £11.50 per patient. Multiplied by 2,808 patients the total cost of a one-year period was £32,292.

Discussion

Guidelines from governing bodies have a widespread impact on clinicians in both primary and secondary care settings. The aim is to provide treatment whilst maximising safety for both patients and clinicians.^{3–5} Cost should not be a disproportionate driving factor when guidelines are written, however the likely long-term effects of COVID-19 mean that this financial burden will be considerable. As such, all guidelines should be founded on a strong evidence base that should be regularly reviewed through the various stages of the pandemic. This will help reduce the likelihood of unnecessary use of PPE where there is no appreciable clinical benefit, whilst improving cost efficiencies (Table 1).

Conclusion

A conservative estimate of increased PPE expenditure for the forthcoming year is £32,292 for Aneurin Bevan Maxillofacial unit. This is likely to increase appreciably as wholesale PPE costs rise. The expenditure is needed to reduce COVID-19 transmission whilst continuing to provide surgical treatment. To reduce this ongoing cost all must be done to help reduce viral spread ensuring normal clinical standards can return as soon as possible.

Conflict of interest

We have no conflicts of interest.

Ethics statement/confirmation of patients?permission

Not applicable

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