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Short communication

# Oral and maxillofacial dental care professionals in critical care during the COVID-19 pandemic

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## Abstract

At the peak of the COVID-19 pandemic there was a ‘call to arms’ across the oral and maxillofacial staff. This article reports on the extended role of the department’s dental care professionals (DCPs) and the tremendous opportunity and value that temporary redeployment presented. © 2020 The British Association of Oral and Maxillofacial Surgeons. Published by Elsevier Ltd. All rights reserved.

**Keywords:** COVID-19; Dental care professionals; Critical care

## Introduction

Across the UK, the effect of the coronavirus (COVID-19) pandemic on routine patient care in oral and maxillofacial and orthodontics departments (OMOD) was sudden and dramatic. From 23 March 2020, our OMOD ceased all face-to-face clinics following a public order to stay at home, and soon after, some staff were redeployed to the medical wards to help with the pending crisis. In our Trust there was an invitation to dental care professionals (DCPs) to become part of the COVID-19 critical care team. Two members of staff took on the challenge (SF, GF). The purpose of this article is to

reflect on the impact on the roles of the DCPs of redeployment to the critical care unit (CCU).

## Redeployment to critical care unit

As part of the preparation for the pandemic, the Trust made provision to expand the existing 18-bedded CCU with an escalation plan of 52 beds. Phase one of the additional resource was an extra five beds, which was sufficient through the crisis. During the redeployment, there were 143 admissions to CCU, of which 44 were confirmed COVID-19 positive (15 had level 3 care, and 29 level 2 care). Our redeployment was for 10 weeks.

There was the initial trepidation of the unknown due to the change in working environment and the need to learn new skills. Also, there was some degree of fear because of the potential exposure to COVID-19 when caring for COVID-positive patients in an aerosol-generating setting (Fig. 1). Although the DCPs had no prior experience in CCU, their presence was welcomed and they rapidly became integrated

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Fig. 1. The two members of staff (SF, GF) who took on the challenge of becoming part of the critical care team during the COVID-19 pandemic.

as members of the multiprofessional team. There was recognition by the CCU staff of the additional skills and knowledge that the DCPs brought to the team with regards to oral health care. In addition, there was an appreciation that, in spite of the tremendous difficulties associated with the crisis, it was appropriate to have a holistic approach to the patients' care, which included the mouth. The extended roles for the DCPs also involved the personal care of patients and one-to-one basic observations.

The rationale for including DCPs in the CCU has stemmed from the benefit to patients of advice about oral health care and interventions. In busy working environments, there is a

tendency not to prioritise oral health care unless there are obvious oral health problems.<sup>1</sup>

Redeployment provided an opportunity to highlight the important aspect of care of 'putting the mouth back into the body'.<sup>2</sup> It is recognised that hospitalisation can be associated with a deterioration in the oral health of patients,<sup>3</sup> and some of the risk factors for poor oral health are poor mouth care, dehydration, medications, and mouth breathing. There is a link between oral bacteria and the risk of aspiration pneumonia<sup>4</sup> and ventilator-associated pneumonia (VAP), thus optimal care of the oral cavity is important for patients on CCU. The principles involved focus on reducing

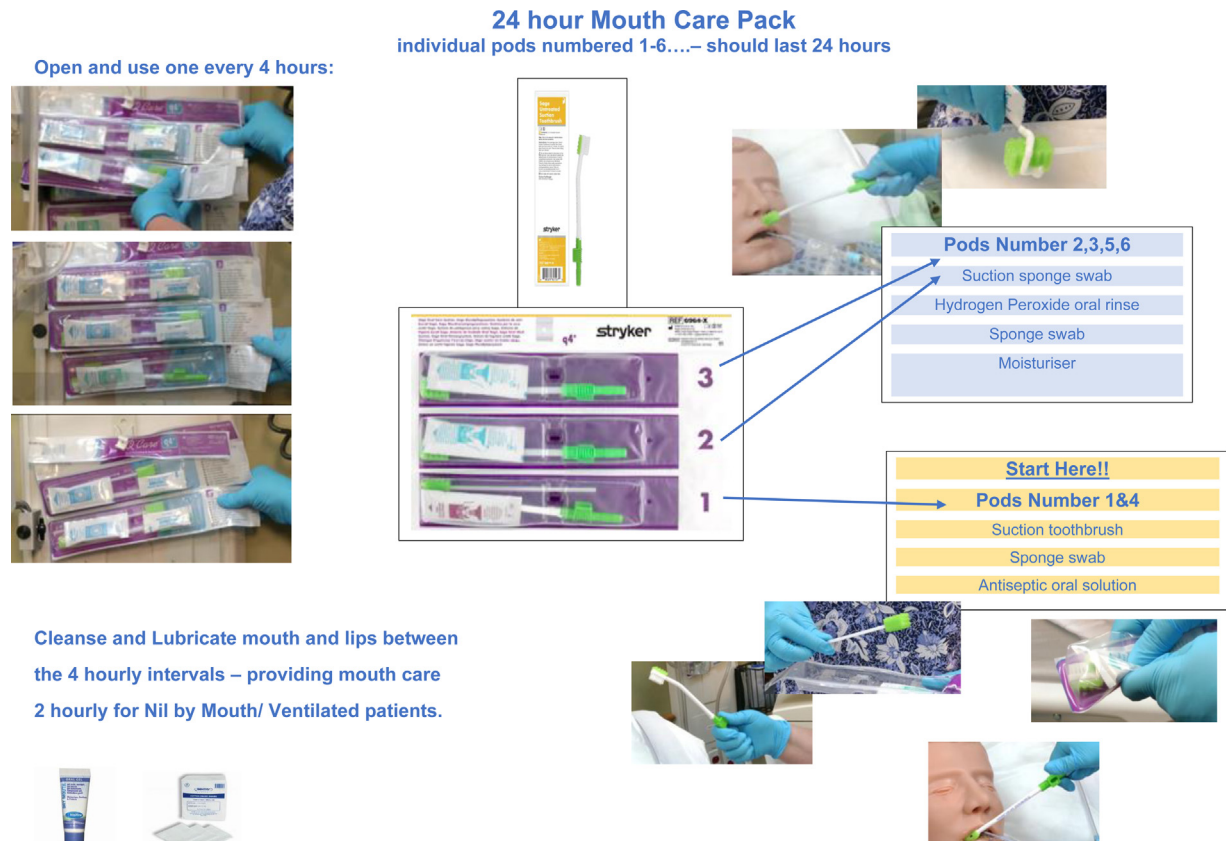


Fig. 2. Poster showing instructions for the use of mouth care products. Sage products LCC, a subsidiary of Stryker Corporation, granted a license to Wirral University Teaching Hospital to attach images of their products and logos for the sole purpose of the publication of this oral care poster in the BJOMS.

the bacterial and viral load whilst improving the patients' comfort and sense of well-being, and aiding their recovery.

The CCU team are well-trained to manage oral health care for their patients. However, due to the intensity of their workload during the pandemic, it was one less task for them to do. Mouth care was performed for each patient every two hours and took about 20 minutes.

### Introduction of mouth care products

Extra funding for the COVID-19 pandemic was made available and this allowed for the introduction of mouth care products that have previously been unavailable due to cost. Products such as single-use suction toothbrushes and suction swabs proved to be invaluable, as oral secretions can accumulate in patients who are ventilated, particularly after a patient has been returned to a supine position from being prone. Even though the inflated cuffs of tracheal tubes help to prevent aspiration, there is still a risk of microaspiration to the lungs. The relief of pressure sores and trauma to the lips of ventilated patients was achieved with regular topical application of a water-based lubricating dry-mouth gel (bioXtra®, RIS Products Ltd). Frequent application of the gel intraorally and to the lips after brushing the teeth well can protect the patient's mouth. Non-foaming (sodium lauryl sulphate

(SLS)-free) toothpaste was also introduced to help manage the risk of aspiration

There were controversies among the CCU staff about the relation of the use of chlorhexidine mouthwash for intubated patients and high mortality rates.<sup>5</sup> However, the current Public Health England guidelines recommend its use.<sup>6</sup> It has been documented that hydrogen peroxide mouthwash effectively reduces microbial loads,<sup>7</sup> but there were issues with pharmacy approval.

### Staff education

Information on the use of these products was displayed on the staff education board and a simple poster was made for staff to refer to (Fig. 2).

### Post-COVID transformational change

The DCPs have been asked to be involved in the tracheostomy steering group in their roles as mouth-care nurses for CCU. There is an initiative to continue to provide structured staff education and to implement mouth care assessments with the recording of oral care assessment in nursing notes. The role of hygienists has been extended in the wards and there are plans

for training sessions on oral care for ward nurses to enable them to achieve the competencies to deliver oral care to their patients. There are potentially unmet needs for other high-risk patient groups such as palliative and oncology patients, and the DCP outreach ward service is being expanded.

In conclusion, despite all the challenges of the pandemic, at a personal level it has been an opportunity to demonstrate resilience and optimism, and embrace a new challenge. At the team level, the DCP was a valued member of the group and added to the team spirit. At the Trust level, the extended role should have benefits for a wider group of patients beyond CCU. The redeployment allowed the opportunity to provide holistic patient-centred care to those whose mouth care might otherwise have been overlooked given the enormity of the challenge that the COVID-19 emergency commanded.

#### **Ethics statement/confirmation of patients' permission**

Ethics approval not required. Permission was obtained to take photographs and to be used as Fig. 1.

#### **Compliance with ethical standards**

The study is a reflection of practice and does not require ethical approval. The Trust have approved the submission.

#### **Conflict of interest**

We have no conflict of interest

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