

A potential interprofessional workforce resource for COVID-19-strained health systems

Dental professionals may represent an underutilized workforce resource for health systems finding themselves in extremis from an increasing incidence of COVID-19 patients. While training and practice differs internationally, an examination of the potential dental contributions available in the USA are informative for more general international application.

There are approximately 150,000 and 200,000 US dental practitioners and dental hygienists, respectively,^{1,2} with a generally widespread geographic distribution; although similar to medicine, many rural areas are designated as dental health professional shortage areas. A growing number of dental practitioners continue to complete residency (postdoctoral clinical training) programs. Among these residencies, oral and maxillo-facial surgery, general practice (hospital-based), pediatric dentistry, and dental anesthesia have hands-on anesthesia rotations and could easily be orientated to assist with managing/monitoring oxygen supplementation. As a result of their residencies, these former residents are already indoctrinated into hospital protocols and culture. There is a pool of at least 15,000 such dental practitioners, within 10 years of residency, who could be a resource to assist in the care for in-patients requiring oxygen support.³ With surge personnel clinical needs further extending to all supporting positions in emergency departments, intensive care units, and COVID-19 wards, and the pool of dental personnel practiced in personal protective equipment (PPE) applications, many would be relatively easily, quickly, and safely integrated into a variety of medical center support roles. Additionally, dental professionals have skills that are applicable to supporting congregate housing units in prevention and care. With death rates increasing daily, morgues may require additional personnel (WJP: personal communication with two New York City Medical Reserve Corps dental practitioners regarding nursing homes and morgue assignments).

Pandemic clinical roles for dental practitioners in emergency departments, intensive care units, and COVID-19 wards thus include:

- monitoring oxygen therapy patients, including ventilators
- assuming multiple supporting roles in selected departments.

Other pandemic clinical roles for dental practitioners and some dental support staff may include:

- supporting congregate housing: staff training in PPE, assisting in care, and surveillance activities
- SARS-CoV-2 testing
- conducting vaccinations in mass vaccination scenarios, in office, or at designated sites⁴
- supporting morgue activities.

Public health activities impact COVID-19 incidence and thus demands on hospital resources that are appropriate for dental personnel participation can consist of:

- assuming public health office roles to allow public health personnel redeployment to field operations⁵
- contact tracing.

Of paramount importance, with a dedicated dissemination of accurate, contemporaneous information, targeted for dental professionals, they can assume an important community role in COVID-19 messaging and as public role models.

Additionally, dental office closures or limitations to patient service volumes, particularly in communities experiencing health disparities, can lead to dental emergencies either being neglected or patients utilizing hard-pressed emergency rooms for dental pain and infections that can be managed elsewhere. The UK redeployed dental personnel to newly created Urgent Dental Care Centers, as well as accepting volunteers to their acute medical services,⁴ assuring temporary urgent/emergency dental service to de-load emergency rooms and equity in emergency dental treatment. The ability to redeploy dental practitioners into various roles did include financial support for closed dental practices, and dentists' participation in the UK National Health Service undoubtedly smoothed organizational



logistic issues.⁴ While periodic or part-time volunteerism by dental practitioners may suffice, financial support mechanisms would benefit securing necessary local COVID-19 clinical support by dental professionals when hospitals and congregate residences' patients and staffs require additional staff or efforts for medical support.

As with delivering flu vaccinations this year in Oregon and several other US states during the 2009 H1N1 epidemic, hospital credentialing and state scope of practice regulations needed modification, likely a common issue in various permutations in many countries.⁵ However, whether supporting public health initiatives or providing hospital support when overwhelming demand on health professional resources threaten the ability to manage patients, dental professionals are an important resource that could be utilized at the local, state, and national levels.

The projected pandemic course suggests that the medical, dental, public health, and emergency services communities consider joint planning for potential dental response sce-

narios to apply within their areas of responsibility, with the dissemination of plans and any "after-action" reports serving as a basis for future catastrophic event interprofessional infrastructure development.

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