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1 Title:

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3 An Otolaryngologist Redeployed to a COVID-19 ICU, Lessons Learned

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26 Abstract:

27 The COVID-19 pandemic has placed a significant personnel burden on intensive care units  
28 (ICUs) across the globe. Physicians from various specialties, including otolaryngology have  
29 heeded the call and have been redeployed to provide support, serving in a capacity outside their  
30 usual scope of practice. The author shares personal experience from redeployment and provides a  
31 framework for otolaryngologists to maximize their impact while providing high quality patient  
32 care and preserving their own personal safety.

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49 Main Text:

50 Across the globe, healthcare systems are meeting the challenge of COVID-19 head on,  
51 with intensivists facing the brunt.<sup>1</sup> While otolaryngologists have trained extensively in a narrow  
52 field, this crisis has led some of us to expand our role and volunteer for redeployment to aid our  
53 ICU colleagues.<sup>2</sup>

54 Redeployment can be thought of in two phases, the first involves preparation of  
55 physicians for an anticipated surge, the second involves providing support to the frontlines  
56 during peak/late phases when resources are most scarce. Redeployment is not appropriate for  
57 everyone. Most otolaryngologists will need to remain at their post, managing urgent needs -  
58 including head and neck cancer and airway compromise - that if neglected can lead to significant  
59 morbidity and mortality.<sup>3</sup>

60 The risks must also be considered when deciding whether to redeploy. Even if a hospital  
61 has adequate PPE, exposure risk in the ICU is substantial. Otolaryngologists must evaluate  
62 personal risk-factors, including advanced age and comorbidities such as immunocompromise.  
63 The possibility of transmitting illness to at-risk family members must also be weighed. Some  
64 intensivists have chosen to self-isolate from their families while on service.<sup>4,5</sup> Although no  
65 guidelines exist, redeployed otolaryngologists may consider the feasibility of self-isolation based  
66 on their own circumstances.

67 As a laryngologist, I would have preferred to be redeployed to a dedicated  
68 intubation/procedural team, utilizing the airway skills with which I am most comfortable.  
69 However, during this crisis, our preferences must come secondary to best maximize our impact.  
70 During redeployment, I was fortunate enough to acquire some experience which I hope will be  
71 useful to otolaryngologists considering redeployment.

72 *Personal Protection*

73 ICU clinicians are responsible for their own safety and must advocate and protect  
74 themselves at all times. Particularly during the donning and doffing process, where  
75 contamination can easily take place. Whether it's disinfecting a PAPR or removing an N95 mask  
76 we should display the same diligence we do when scrubbing into the OR. Use this time to not  
77 only don the PPE, but to don the mindset required in the ICU. Adherence to the strict habits  
78 necessary to maintain safety while in the ICU can be taxing but it's important to remain diligent  
79 when coming on and off the unit. Inevitably situations will arise where a patient requires  
80 immediate attention however we must remember that personal safety takes precedent and take  
81 the time to properly don our equipment before responding. Consider an approach to patient care  
82 that limits time in the ICU (utilizing conference rooms for rounds, etc.); the longer we are in the  
83 unit the longer we are at risk therefore we should limit our physical presence as much as  
84 possible.

85 *Flexibility in Scheduling*

86 When facing redeployment, review your proposed schedule with the lead intensivist to  
87 ensure that your efforts are being optimized. The lead intensivist will be aware of changing staff  
88 needs that may not be apparent to the person designing the initial redeployment schedule. Being  
89 flexible is essential to maximizing your impact.

90 *Teamwork in the ICU*

91 In contrast to our usual role as surgical team leader, when redeployed we find ourselves  
92 in a different environment and must fit into the framework of an intensivist-led team. To do this  
93 job successfully, one must become familiar with many skills that we take for granted as

94 attendings - how to efficiently put in orders, location and status of necessary ICU equipment, and  
95 establishing lines of communication with other services.

#### 96 *Getting up to Speed*

97 While brushing up on ICU medicine before redeployment is important, most of the  
98 learning will be done on the job, preferably during an early pandemic phase. Be a sponge on  
99 rounds and ask questions, regardless of simplicity. As we are working outside our normal scope  
100 of practice it's important to relinquish the role of attending and accept the role of a can-do  
101 collaborator. From a medicolegal standpoint, this role is also most appropriate. The best way to  
102 learn is to do the tasks yourself. Don't be an observer. Take on your own patients but ask for  
103 help often when encountering the unfamiliar. Start with low volume and gradually increase the  
104 load.

#### 105 *Utilizing Our Skill Set*

106 Although procedures such central lines and a-lines may be best performed by other team-  
107 members, certain procedures such as gastrostomy tube or tracheostomy placement may be more  
108 suited to our skill set.<sup>6</sup> The presence of an otolaryngologist readily able to consult on problems  
109 ranging from epistaxis to evaluation of post-extubation stridor is invaluable.<sup>7</sup>

#### 110 *Education and Quality Improvement*

111 Redeployment can be an opportunity to educate our colleagues. On a formal or informal  
112 basis, education on topics including post-intubation laryngeal injury, ICU-related dysphagia, and  
113 tracheostomy care have been well received by ICU clinicians and will lead to improved  
114 standards of patient care.<sup>8</sup>

#### 115 *Managing Your Otolaryngology Practice*

116           Redeployment can be full-time, however your otolaryngology patients will continue to  
117 require guidance. It is essential to have supportive colleagues assist in the management of your  
118 practice to be able to participate in redeployment without neglecting your established patients.<sup>9</sup>

### 119 *Self-Care*

120           The stress experienced by healthcare providers can be overwhelming and during these  
121 times it is more important than ever to acknowledge our own physical and mental health needs.<sup>10</sup>  
122 Even in isolation, support from family, friends, and colleagues can be invaluable in preserving  
123 our morale.

124           I have witnessed ICU team-members show tremendous resolve, and we as  
125 otolaryngologists must continue to be an example to our students, residents, and colleagues and  
126 support those working on the frontlines of this pandemic.

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