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Published in:
Surgeon

DOI:
10.1016/j.surge.2020.06.001

Publication date:
2021

Licence:
UK Government Non-Commercial Licence

Document Version
Publisher's PDF, also known as Version of record

Link to publication in Discovery Research Portal

Citation for published version (APA):
Singh, M., Ghaly, G., Mumtaz, S., Hughes, C., & Thomas, S. (2021). Triaging algorithm for head & neck oncology follow-up patients in COVID-19 climate. *Surgeon*, *19*(1), 33-36. https://doi.org/10.1016/j.surge.2020.06.001

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Triaging algorithm for head & neck oncology follow-up patients in COVID-19 climate

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ARTICLE INFO

Article history:
Received 1 May 2020
Accepted 3 June 2020
Available online 11 June 2020

Keywords:
Triaging
Algorithm
Oral cancer
COVID-19
Coronavirus
Oncology
Recurrence
Risk assessment

ABSTRACT

The current climate is one of uncertainty and immeasurable tragedy for people afflicted by the pandemic of SARS-CoV-2 virus infection. As professionals, we have a duty of care towards all patients especially the vulnerable and those suffering with life-threatening illnesses such as oral cancer. We present a safe & objective triaging method for afflicted with this disease in the prevailing morbid situation.
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Introduction

Since the advent of the pandemic of SARS-CoV-2 infection (COVID-19), a number of changes have ensued in terms of patient assessment & management. It is apparent that the care of the elderly and vulnerable patients has been severely compromised. Amongst them are the head & neck oncology patients who need regular and rigorous evaluation to ensure that new and/or recurrent pathologies are not missed & that their anxiety is alleviated.

Many units across United Kingdom (UK) & other countries have devised alternative arrangements in the form of remote or virtual clinics including telephone and/or video consultations to provide continuity of care so that these patients do not have to attend high-risk environments such as hospitals & surgeries and hence prevent spread of disease. Although, avoiding face-to-face (F2F) reviews has proven advantages in the present scenario, there is increased anxiety amongst surgeons due to the uncertainty and fear of missing cancer diagnosis using remote aids.

The British Association of Head & Neck Oncology (BAHNO) issued a joint statement along with the Ear, Nose & Throat UK (ENT UK) and British Association of Oral & Maxillofacial Surgeons (BAOMS) in March 2020, recommending an urgent need for rigorous triaging of referrals & follow-ups, significantly reducing surgical work-load and provisioning of alternative & less extensive modes of surgery & reconstruction when required.[1]

Methods

In view of the above recommendations, The Oral and Maxillofacial Surgery team at South West Head & Neck Institute developed a triaging system based on the risk of recurrence as well as the risk of survival if patient contracted COVID-19.

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https://doi.org/10.1016/j.surge.2020.06.001
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Table 1 – Appendix A - Risk of cancer recurrence.

High
<18 months post-treatment
Multiple primaries
Previous recurrence
Current smoker and/or heavy alcohol intake
Poor tumour differentiation
High lymph node ratio
Advanced presenting stage
Required adjuvant treatment
Intermediate
18–36 months post-treatment
Single tumour
No adjuvant treatment
No current smoking/heavy alcohol intake
Low
>3 years post-treatment
Single tumour
No adjuvant treatment
No current smoking/heavy alcohol intake

The risk of recurrence was classified into high, intermediate and low tiers based on well-known prognostic variables (Table 1). The risk of survival was assessed based on the vulnerability of the population as specified by the Public Health, England during the current pandemic (Table 2).[2] An algorithm was then constructed utilising these variables to safely triage patients who need F2F assessment as outlined (Table 3).

Discussion

A balanced approach for safe triaging & to ascertain the need for complete assessment of the head & neck oncology patients is necessary to reduce the risk of spread of infection as well as to prevent harm to this vulnerable cohort. In many cases, F2F evaluation remains the only satisfactory option to achieve adequate assessment and reduce anxiety amongst patients.

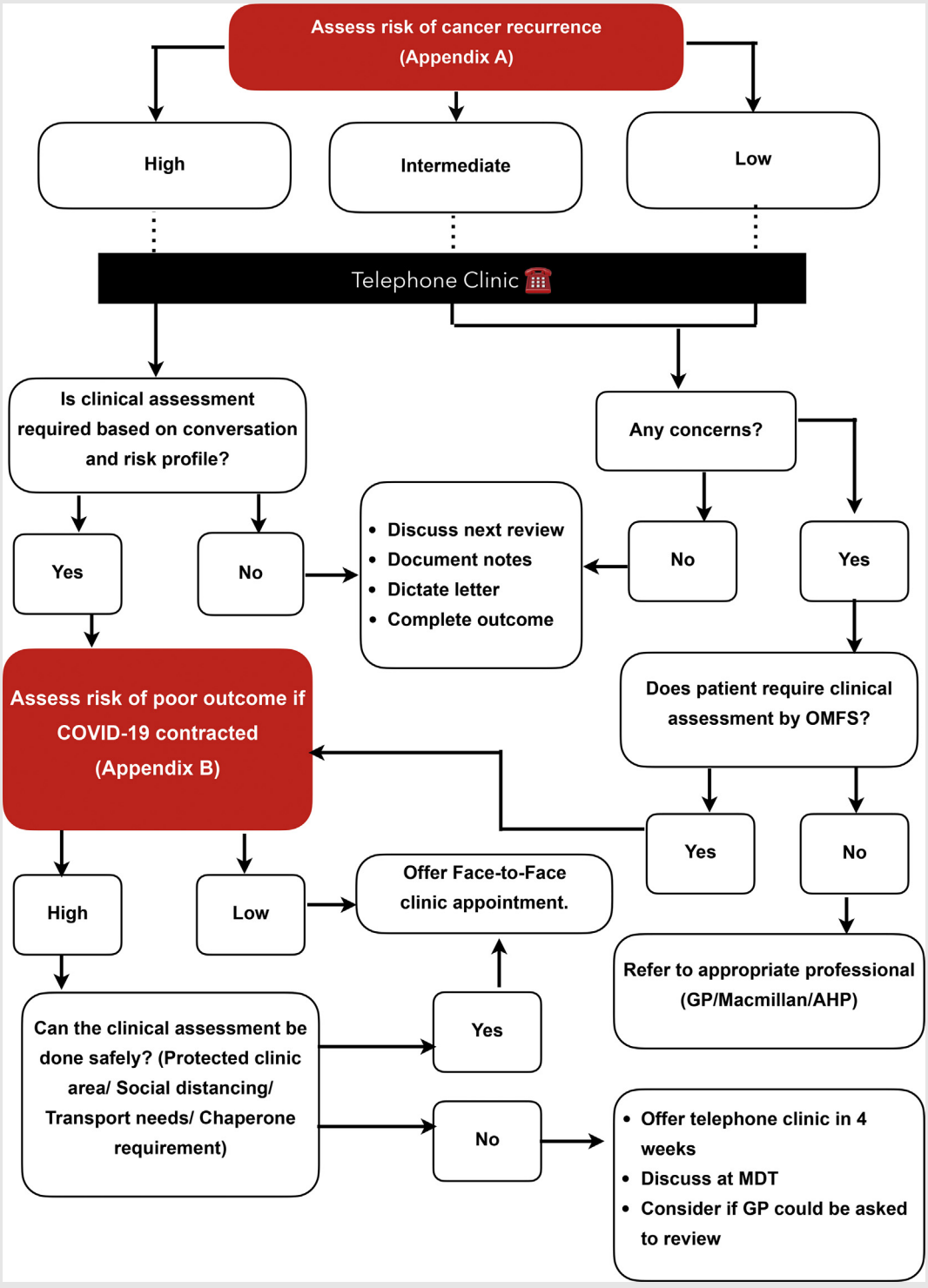
The risk factors associated with oral cancer are well known. A number of factors which heighten the risk of recurrence have been extensively documented in the literature.[3–5] The chances of patients developing COVID-19 & it's morbid consequences increase significantly with age, co-morbidities & immunosuppression. Needless to say, the patients in the 'vulnerable category' have been advised to 'shield' themselves for up to 12 weeks to prevent contagion & it's sequelae.[6] It is therefore, counterproductive to bring these patients for F2F review without risk stratification and triaging except in emergency situations.

We understand that algorithms have their limitations such as being complex, time consuming & associated difficulties with compliance. However, for many clinicians this will be a valuable tool which would provide an objective method of triaging and hence reducing the risk significantly in this vulnerable population. In our unit, we have successfully used the algorithm for our patients with encouraging results. Local modifications may be required to assimilate the working pattern of different units. The authors hope that this novel risk stratification & triaging algorithm will be useful in the head and neck surgery units promoting safe practice as well as preventing harm to the patients.

Table 2 – Appendix B - Risk of survival after contracting COVID-19.

High-risk population	Vulnerable population
Age >70 years	Solid organ recipients
Pregnancy	Patient having active chemotherapy
Pulmonary conditions - Asthma/COPD	Patients undergoing radical radiotherapy
Cardiovascular diseases - MI/Heart failure	Patients with haematological malignancies - Leukaemia/Lymphoma/ Myeloma & history of bone marrow transplant in the last 6 months
Chronic kidney disease	Patient having immunotherapy
Liver diseases - Hepatitis/Cirrhosis	Patients undergoing targets cancer treatments
Neurological disorders - Parkinson's disease/Motor neurone disease/Multiple sclerosis	Pregnant women with significant congenital or acquired cardiovascular disease
Immunosuppression due to disease/medications/cancer treatment	Patients with severe respiratory conditions - Cystic fibrosis/Severe Asthma/Severe COPD
BMI >40	Patents with rare diseases & inborn errors of metabolism

Table 3 – Triaging algorithm for head and neck oncology patients.



Funding

None.

Ethical approval

N/A.

Declaration of Competing Interest

None.

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