The Journal of Pacific Research

PHD PACIFIC HEALTH DIALOG

Short Report **OPEN ACCESS**

Covid-19 and Palliative Care Delivery in Resource-Limited Settings: Healthcare Workers' Involvement

Lawal O OLAYEMI, [1] Jyothi A ABRAHAM, [2] Vicky YEMOH, [3] Kamoru A ADEDOKUN, [4] Maatasesa SAMUELU-MATTHES, [5]

ABSTRACT

As the global surge of the COVID-19 pandemic continues to rise, attention has been drawn to health implications and damaging effects caused by COVID-19 in patients with chronic conditions. Palliative care delivery in diseased patients and those with chronic conditions is imperative in mitigating unprecedented health outcomes. Though many health care workers in developed countries are implementing new strategies to address palliative care challenges in patients at risk of COVID-19, preventive measures and strategies are crucial in resource-limited settings, where palliative care is seen as a new concept. This report addresses the approach to palliative care delivery and changes that may arise from the coronavirus pandemic. It also looks at possible socio-behavioural entities, education, preventive measures and upscaling diagnostic capacity for COVID-19 in resource-limited settings. Harnessing these factors as guidance and delivery tools for healthcare workers in resource-limited settings could help to manage risks and benefits associated with providing optimal palliative care in this pandemic period.

Key words: COVID-19; palliative care; co-morbidities; chronic diseases; health care workers; resource-limited settings

INTRODUCTION

In January 30, 2020, the World Health Organization (WHO) declared the outbreak of the 2019 novel coronavirus disease (COVID-19) as a public health emergency of international concern (PHEIC) [1]. The SARS-CoV-2 disease (COVID-19) primarily manifests as a lung infection with symptoms ranging from those of a mild upper respiratory infection to severe pneumonia, acute respiratory distress syndrome, and death[2]. On-going conversations about COVID-19 and its impact on palliative care have raised concerns on the level of vulnerability of patients and caregivers in exposed situations. Despite the growing need for palliative care in most resource-constrained societies, a huge demand is still imminent for the urgent and continuous delivery of palliative care in non-communicable disease (NCD)-burdened communities. With the trepidation surrounding the current COVID-19 pandemic, there is a need for palliative care to be provided in creative ways that would remain consistent with the core on how it would be offered outside these unique circumstances[3]. More recent studies with consistent evidence have suggested that individuals with chronic non-communicable diseases such as heart disease, cancers, chronic kidney disease And those undergoing renal transplantation may be

Corresponding author: Lawal O Olayemi, Olayemi2002@yahoo.com

1. Senior Lecturer, School of Medicine, Faculty of Health Sciences, National University of Samoa, Samoa
2. Lecturer, School of Nursing, Faculty of Health Sciences, National University of Samoa, Samoa j.abraham@nus.edu.ws
3. Senior Lecturer, School of Medicine, Faculty of Health Sciences, National University of Samoa, Samoa v.yemoh@nus.edu.ws
4. Kamoru A. Adedokun MSc Research Scientist, Department of Oral Pathology, King Saud University Medical City, Riyadh, Saudi Arabia adeolokun@yahoo.com
5. Dean, Faculty of Health Sciences, National University of Samoa, Samoa m.samuelu-matthes@nus.edu.ws

Rec: 29.03.21 **Accept**: 05.04.21 **Publish**: 20.06.21

Citation: Olayemi L, *et al.* Covid-19 and Palliative Care Delivery in Resource-Limited Settings: Healthcare Workers' Involvement *Pacific Health Dialog 2021; 21(7):458-464.* DOI: 10.26635/phd.2021.116

disproportionately affected with COVID-19 [4, 5, 6]. The level of mortality could increase if early interventions are not provided for those at an advanced stage of the disease.

According to the WHO, palliative care has been recognized as an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illnesses, through the prevention and relief of suffering utilizing early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual[7]. Different approaches to palliative care have contributed to the improvement in the quality of life of people dying with co-morbid non-communicable diseases and life-threatening infectious diseases[8]. High-income countries (HICs) may have effective palliative care interventions to respond to serious health-related sufferings. However, there is little access to pain relief or palliative care in resource-limited settings [9]. In the face of this current pandemic, palliative care meets new demands and needs (Table 1). This brings challenges to health care professionals, patients and other caregivers involved in palliative care delivery in these environments. In many countries, healthcare systems including governmental and non-governmental organizations are urgently re-establishing *de novo* practices that best suites patients, their families and caregivers needs. This paper aims to explore different approaches to palliative care delivery and to address the changes that may arise from the coronavirus pandemic.

Addressing Healthcare Workers' Role in Education, Prevention and Psychosocial support

Importance of Telehealth in controlling the spread of COVID-19

Unlike resource-limited settings, developed and high-income societies are less perturbed about the challenges of efficient education technologies and information systems. Moreover, tracking the medical history and records of patients with chronic diseases at end-of-life and those requiring palliative care may be less demanding due to the availability of sophisticated technologies. This has eased the burden and anxieties associated with loss of or shortage of patients' medical data and thus affecting overall healthcare outcomes. Additionally, achieving care goals and objectives is paramount despite accumulated phobias and anxieties amidst caregivers and patients. There is also the possibility of a disproportionate decrease or non-existent telemedicine and e-health in resource-limited settings, thereby obtaining quality palliative care may become problematic. These concerns could be addressed by enabling telemedicine or e-health to ease patients or caregivers' distress and to prevent hospitalizations[3]. Healthcare workers can provide telehealth services through devices such as computers, smartphones, and tablets[10]. Interaction between a care provider and a patient can still occur despite social distancing and stay-at-home orders, thus, eliminating the exposure risk inherent in an in-person clinic visit[11]. Telehealth can be used to monitor patients recovering from COVID-19 after their discharge from the hospital[12]. This may be made possible through institutionalizing user-friendly telehealth systems as part of routine patient care and clinical practice. This further stresses the urgent need for the provision of e-health services to patients in under-resourced settings, especially where limitations exist in bridging the patient's information from the community and district health care facilities to the main tertiary and referral hospital.

Addressing the role of Healthcare Workers in mitigating the spread of COVID-19 via video conferencing and electronic media:

In the inpatient setting, palliative care practitioners can effectively and creatively utilize telemedicine for patients with and without COVID-19 because personal protective equipment (PPE) may be limited and family/caregiver visitation may often be restricted. Patients with critical illness in the intensive care units may die, and families/caregivers are distressed as they grieve for their loved ones from a distance. For patients with COVID-19, clinical decline can be rapid, providing little time for families/caregivers to make difficult decisions. Communication during COVID-19 can be challenging since the outcome is uncertain but engaging family members through video calls enhances therapeutic presence[13]. Recent studies have shown how healthcare workers and organizations shifted their visits away from face-to-face visits to video conferencing and explained that patients often welcomed video visits in place of house calls when it was communicated that the decision was deliberate to maintain patient safety[14]. Healthcare workers and patients were also capable of building strong connections through video visits when available[14]. Video visits address two barriers: (i) they provide a form of face-to-face communication and (ii) they allow multiple healthcare workers to engage patients/ families and caregivers simultaneously, which can be a challenge in person. Additionally, Oseni et al[15] in 2020 highlights that education and

Table 1: Modified Palliative Care Pandemic Plan

Healthcare Workers	**Resources**	**Settings**	**Structures**
Recruit and train healthcare workers in emergency and palliative care expertise - Physicians - Nurse specialists	Adequate storage of medical equipment and test Kits.	Identify areas that can be converted into makeshift Intensive care units, isolation and quarantine spaces.	Generate a system to identify patients in need of specialist palliative care management
Provide focused education sessions to frontline staff for symptom management and end-of-life care for COVID-19 patients	Arrange test kits including Personal protective Equipment (PPEs) to deliver prompt and safe diagnostic techniques for long term management at facilities	Identify wards and non-clinical areas in all healthcare facilities that would be appropriate to accommodate large numbers of patients	Build a system for healthcare facility and community transfers to dedicated palliative care units and wards.
Involve allied healthcare workers to provide psychosocial support, grief and bereavement counselling. - Nursing assistants - Health attendants - Social workers - Spiritual care staff - Volunteers	Provide constant supply of water and electricity and ensure public awareness via Billboards, TV adverts and Radio Jingles, Print media	Maximize the use of identified palliative care unit, hospice, and ward beds.	Generate a system for consultation support telemedicine or user friendly video and mobile technology
	Provide locally produced hand sanitizers and face masks		Create comprehensive care plans for all patients admitted to health care facilities and age care homes
	Provide medical and emergency tents for admissions and treatment		Create tracking systems for all COVID-19 patients and those already recovered

Source: {Downar & Seccareccia. Palliating a pandemic: 'All patients must be cared for', Journal of Pain and Symptom Management. 2010; 39 (2), 291 – 295} copyright: *AAHPM 2010*

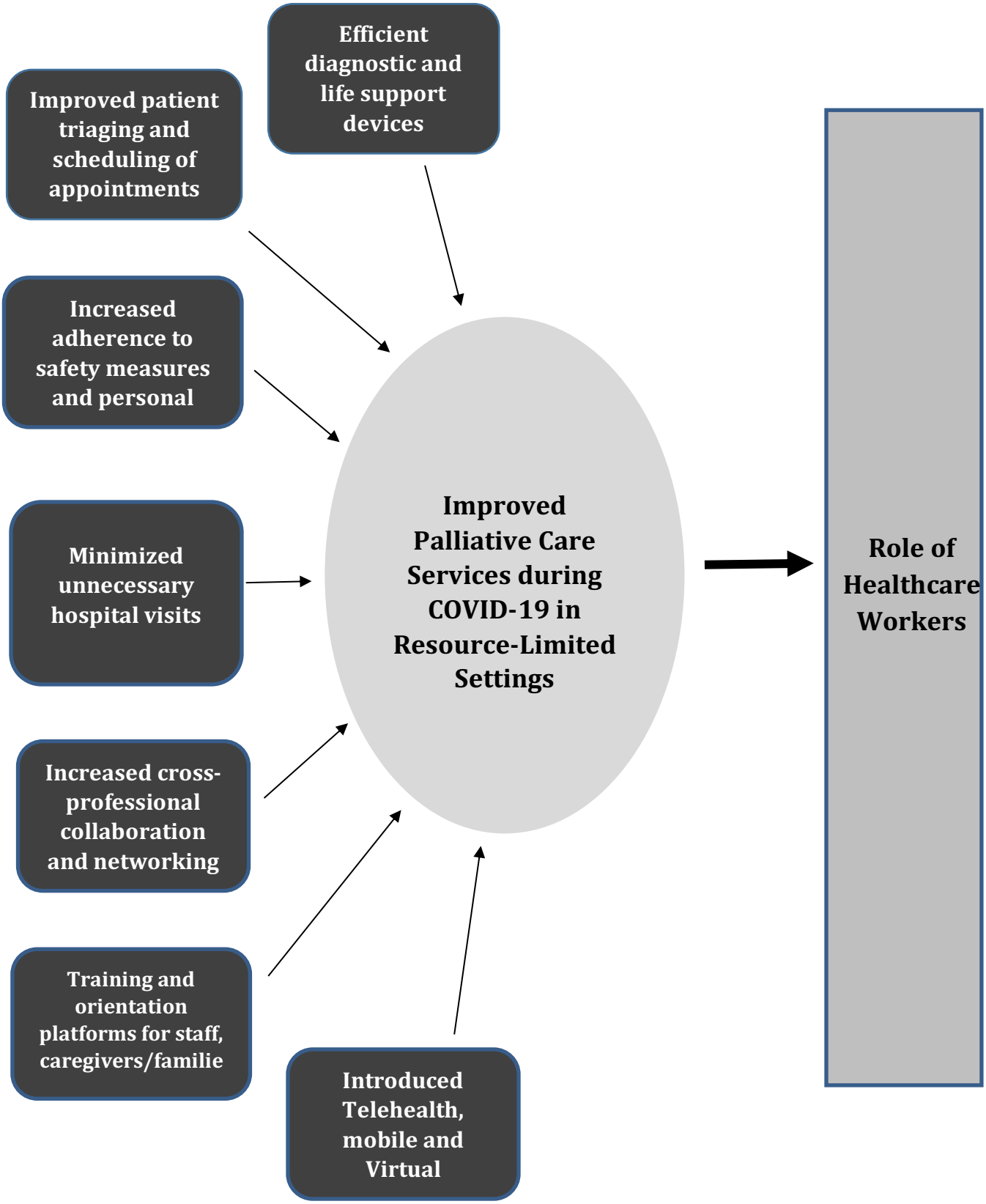

Figure 1: Conceptual framework for improving palliative care services during the period of COVID-19 in resource-limited settings. (Designed in Bio render)

enlightenment of the populace through health talks to patients presenting to out-patients clinics through electronic media have helped dispel rumours and provide accurate information on what should be done to prevent COVID-19 from spreading, and what to do if there is a suspected case[15]. Curtailing the transmission of COVID-19 via available means is imperative in stemming the tides of disease spread. These tools may allow continuous provision to early palliative care services, which are more necessary now (**Figure 1**).

Addressing the role of Healthcare Workers in psychosocial support in the period of COVID-19:

Patients, despite COVID-19 status, require advance care planning and may likely have conversations about their health conditions, with growing fears of limited medical resources and prolonged isolation. Families of patients with COVID-19 may face a significant psychological burden that is often magnified by family members themselves being in isolation or under financial strain, especially in resource-limited environments, where most people rely on daily earnings. This may affect both medical aspects and the psychosocial well-being of patients and their caregivers. Health workers need to have honest discussions with patients and their caregivers on plans to have the best care provided, but also prepare them for the worst that could happen[16]. Health care workers should also acknowledge the distress of this complex and unique situation for patients and their families, and be compassionate, respectful and empathetic[17]. There may be guilt over possibly transmitting the infection to their loved ones. The quality of the dying experience and lack of preparation for the death are both predictors of complicated grief. Healthcare workers should communicate with families regularly and where possible facilitate communication between patients and their families utilising virtual technology[16]. Healthcare workers themselves may be faced with different dilemmas in these unprecedented situations such as COVID-19 pandemic. Some healthcare workers currently caring for COVID-19 patients may be redeployed from their customary clinical environments, including those normally assigned to cardiac, cancer and renal disease care, to support heavily burdened clinical services[18]. Some staff may feel conflicted, being aware that their reassignment to support the obvious needs of COVID-19 patients might undermine the care of those whom they are normally responsible for. They may express some anxiety for being exposed to COVID-19 and this may increase the fears of healthcare workers working in these areas.

Addressing the need for improved COVID-19 life support medical equipment and diagnostic capacity:

Despite growing campaigns and demands for adequate publicly funded health systems, there is still lack of well-equipped state-of-the-art diagnostic health facilities for laboratory testing, public health disease control centres, and highly trained personnel to provide palliative care to patients exposed to COVID-19. Globally, COVID-19 testing has been seen to be a challenge, especially in countries that have less resources and capacity. Currently, only a few rapid immuno-diagnostic tests with high specificity and sensitivity are available and only in higher income settings[19]. Availability of sufficient diagnostic kits in resource-limited societies is low, as healthcare workers' capacity and their human resources to educate patients and their families are scarce to respond adequately to high caseloads. There is a need for targeted large-scale testing and this can only be achieved through a more rapid, accurate and affordable diagnostic testing approach and scaling up laboratory testing capacity. However, laboratory testing is not without challenges as resource-limited nations struggle with well- equipped laboratories and clinical laboratory professionals that can cater to its population[20]. This can contribute result to the diagnostic insufficiencies in these regions[20]. It further reinforces the need to develop laboratory capacity and its human resources in poorer countries to enable health workers to cater for diseased patients including those requiring palliative care.[21]

Furthermore, patients in hospital intensive care units often rely on lifesaving or support especially ventilators for patients, thereby making the patients and their families to become demoralized and worried. In difficult situations like these, healthcare workers may give subjective considerations to younger patients, infected healthcare workers with COVID-19 over older end-of-life care patients requiring ventilator support. Such decisions through unethical is based predominantly on the concept of distributive justice and this can as well cause moral distress to the healthcare workers[18]. Reallocation of ventilator support from critically ill patients will be distressing for healthcare workers, patients and their family/caregivers because, in regular conditions, the removal of ventilator support is only done when a family member approves[22]. Patients in these situations need continuous comprehensive palliative care

to prolong their quality of lives. This calls for urgent action by respective stakeholders, in providing adequate and functionally efficient life support machines, to minimise the mortality rates in patients and those receiving palliative care.

CONCLUSION

In resource-limited settings, palliative care patients' with COVID-19 may have varying degrees of comorbidity scores and also produce a higher prevalence of symptoms and lower performance status with rapid health deterioration. Effective communication is very important between healthcare workers, patients/families and caregivers to adopt different care approaches at various levels, including primary and secondary forms of care. Consistent practice of educating patients and caregivers on preventive strategies towards COVID-19 via available technology such as telehealth, video and mobile devices should be incorporated in the delivery of palliative care. Progressive healthcare policies by policymakers and prompt interventions regarding diagnosis, laboratory confirmation of patients with COVID-19 and early referrals to palliative care are essential in reducing unforeseen resultant health outcomes. Cohesive and timely collaboration among healthcare workers, stakeholders and other institutions would assist in the quality delivery of palliative care, especially in areas with reduced human and material resources. These could assist in enhancing the confidence of patients, families and their caregivers. Healthcare workers should endeavour to provide optimum and cautious services as much as possible to improve the quality of health and provide end-of-life care with dignity. Further studies on the needs and psychological factors associated with patients/caregivers decision making should be carried out to measure and ascertain the acceptance level of care in patients during this pandemic season.

Abbreviations:
WHO: World Health Organization
PHEIC: Public Health Emergency of International Concern
NCD: Non-communicable diseases
HICs: High-Income Countries
PPE: Personal Protective Equipment

REFERENCES

1. Olayemi LO, Boodoosingh R, Amosa-Lei Sam F. Is Samoa Prepared for an Outbreak of COVID-19? *Asia Pac Journal of Pub Health*. 2020. doi: 10.1177/1010539520927283
2. Palevsky PM, Radhakrishnan J, Townsend RR. Coronavirus disease 2019 (COVID-19): Issues related to kidney disease and hypertension. 2020. Available from: https://www.u5ptodate.com/contents/coronavirus-disease-2019-covid-19-issues-related-to-kidney-disease-and-hypertension#H3887812283 (Accessed: July 2 2020).
3. Mehta AK & Smith TJ. Palliative Care for Patients with Cancer in the COVID-19 Era. *JAMA Oncology* 2020; 7. Available from: http://dx.doi:10.1001/jamaoncol.2020.1938
4. Garg S, Kim L, Whitaker M, O'Halloran A, Cummings C, Holstein R, et al. Hospitalization Rates and Characteristics of Patients Hospitalized with Laboratory-Confirmed Coronavirus Disease 2019 — COVID-NET, 14 States, March 1–30, 2020. *MMWR Morbidity Mortality Weekly Report* 2020; 69(15): 458-464.
5. Richardson S, Hirsch JS, Narasimhan M, Crawford JM, McGinn T, Davidson, KW, et al. Presenting Characteristics, Comorbidities, and Outcomes among 5700 Patients Hospitalized with COVID-19 in the New York City Area. *JAMA* 2020; 323(20):2052-2059.
6. Akalin E, Azzi Y, Bartash R, Seethamraju H, Parides M, Hemmige V, et al. Covid-19 and Kidney Transplantation. *New England Journal of Medicine* 2020; 382(25):2475–7.
7. Al-Mahrezi A & Al-Mandhari Z. Palliative Care: Time for Action. *Oman Medical Journal* 2016; 31(3):161–3. Doi: dx.doi.org/10.5001/OMJ.2016.32
8. Zaman S, Inbadas H, Whitelaw A, Clark D. Common or multiple futures for end of life care around the world? Ideas from the 'waiting room of history'. *Social Science Medicine* 2017; 172:72-9. Doi: 10.1016/j.socscimed.2016.11.012
9. Knaul FM, Farmer PE, Krakauer EL, De Lima L, Bhadelia A, Kwete XJ, et al. Alleviating the access abyss in palliative care and pain relief-an imperative of universal health coverage: the Lancet Commission report. *Lancet* 2018; 391:1391-454. Doi: 10.1016/S0140-6736(17)32513-8
10. Zhou X, Snoswell CL, Harding LE, Bambling M, Edirippulige S, Bai X. The role of

telehealth in reducing the mental health burden from COVID-19. *Telemed J E Health* 2020; 26(4):377-379. Doi: 10.1089/tmj.2020.0068.

11. Centres for Disease Control and Prevention CDC. Interim guidance for healthcare facilities: preparing for community transmission of COVID-19 in the United States. CDC. 2020. Available from: cdc.gov/coronavirus/2019-ncov/healthcare-facilities/guidance-hcf.html. Updated February 29, 2020. (Accessed August 13, 2020).
12. Goldberg, M. Washington Department of Health briefs senate on status of COVID-19. State of Reform.2020. Available from: stateofreform.com/issues/public-health-2/2020/03/washington-department-of-health-briefs-senate-on-covid-19-updates. (Accessed August 13, 2020).
13. Ting R, Edmonds P, Higginson IJ, Sleeman KE. Palliative care for patients with severe COVID-19. *BMJ*. 2020; 14. Available from: http://dx.doi.org/10.1136/BMJ.M2710 (Accessed August 13, 2020).
14. Tran DL, Lai SR, Salah RY, Wong AY, Bryon JN, McKenna MC, et al. Rapid De-Escalation and Triaging Patients in Community-Based Palliative Care. *J Pain Symptom Manage* 2020; 60(1):45-47 doi: 10.1016/j.jpainsymman.2020.03.040
15. Oseni TIA, Agbede RO, Fatusin BB, Odewale MA. The role of the family physician in the fight against Coronavirus disease 2019 in Nigeria. *African Journal of Primary Health Care Fam Med* 2020; 12(1):1-3. doi: 10.4102/phcfm.v12i1.2492
16. SIAARTI - Italian Society of Anaesthesia Analgesia Resuscitation and Intensive Care Bioethical Board. End-of-life care and the intensivist: SIAARTI recommendations on the management of the dying patient. *Minerva Anestesiol* 2006; 72(12):927-63. English, Italian. PMID: 17235263
17. Bajwah S, Wilcock A, Towers R, Costantini M, Bausewein C, Simon ST et al. Managing the supportive care needs of those affected by COVID-19. *European Respiratory Journal* 2020; 55(4). Doi: 10.1183/13993003.00815-2020.
18. Hill L, Beattie JM, Geller TP, Baruah R, Boyne J, Stolfo GD et al. Palliative care: Essential support for patients with heart failure in the COVID-19 pandemic. *European Journal of Cardiovascular Nursing* 2020; 19(6):469–72.
19. Kavanagh MM, Erondu NA, Tomori O, Dzau VJ, Okiro EA, Maleche A et al. Access to lifesaving medical resources for African countries: COVID-19 testing and response, ethics, and politics. *Lancet* 2020; 395(10238):1735-1738. Doi: 10.1016/S0140-6736(20)31093-X
20. Okeke IN. Diagnostic insufficiency in Africa**.** *Clin Infect Dis* 2006; 42(10) doi: 10.1086/503308.
21. Adebisi YA, Oke GI, Ademola PS, Chinemelum IG, Ogunkola IO, Lucero-Prisno DE. SARS-CoV-2 diagnostic testing in Africa: needs and challenges. *Pan African Medical Journal* 2020; 35(2). Doi: 10.11604/PAMJ.2020.35.4.22703.
22. White DB & Lo B. "A Framework for Rationing Ventilators and Critical Care Beds during the COVID-19 Pandemic." *JAMA* 2020; 323(18):1773. Doi:10.1001/jama.2020.5046
23. Downar J & Seccareccia D. "Palliating a Pandemic: 'All Patients Must Be Cared For.'" *Journal of Pain and Symptom Management* 2010; 39(2):291–295. Doi: 10.1016/j.jpainsymman.2009.11.241.