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What is the preparedness and capacity of palliative care services in Middle-Eastern and North African countries to respond to COVID-19? A rapid survey

Sabah Boufkhed, Richard Harding, Tezer Kutluk, Abdullatif Husseini, Nasim Pourghazian, Omar Shamieh

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Title: What is the preparedness and capacity of palliative care services in Middle-Eastern and North African countries to respond to COVID-19? A rapid survey

Authors: Sabah Boufkhed[1*], Richard Harding[1], Tezer Kutluk[2], Abdullatif Husseini[3], Nasim Pourghazian[4], Omar Shamieh[5,6]

Affiliations:

(1) Cicely Saunders Institute, Florence Nightingale Faculty of Nursing Midwifery and Palliative Care, King's College London, London, United Kingdom

(2) Department of Pediatric Oncology Hacettepe University Faculty of Medicine and Cancer Institute, Ankara, Turkey

(3) Institute of Community and Public Health, Birzeit University, Birzeit, Palestine

(4) Regional Office for the Eastern Mediterranean, World Health Organization, Cairo, Egypt

(5) Center for Palliative & Cancer Care in Conflict, Department of Palliative Care, King Hussein Cancer Center, Amman, Jordan

(6) College of Medicine, The University of Jordan, Amman, Jordan

***Corresponding author:**

Sabah Boufkhed
Email: sabah.boufkhed@kcl.ac.uk
Phone: +44 (0)207 848 5523

Address: Florence Nightingale Faculty of Nursing Midwifery and Palliative Care, Cicely Saunders Institute, Department of Palliative Care, Policy & Rehabilitation, King's College London, Bessemer Road, London SE5 9RS, United Kingdom

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Abstract

Context Evidence from prior public health emergencies demonstrates palliative care's importance to manage symptoms, make advance care plans, and improve end-of-life outcomes.

Objective To evaluate the preparedness and capacity of palliative care services in the Middle-East and North Africa region to respond to the COVID-19 pandemic.

Methods A cross-sectional online survey was undertaken, with items addressing the WHO International Health Regulations. Non-probabilistic sampling was used, and descriptive analyses were conducted.

Results Responses from 43 services in 12 countries were analysed. Half of respondents were doctors (53%), and services were predominantly hospital-based (84%). All but one services had modified at least one procedure to respond to COVID-19. Do Not Resuscitate (DNR) policies were modified by a third (30%) and unavailable for a fifth (23%). While handwashing facilities at points of entry were available (98%), a third had concerns over accessing disinfectant products (37%), soap (35%), or running water (33%). The majority had capacity to use technology to provide remote care (86%) and contact lists of patients and staff (93%), though only two-fifths had relatives' details (37%). Respondents reported high staff anxiety about becoming infected themselves (median score 8 on 1-10 scale), but only half of services had a stress management procedure (53%). Three-fifths had plans to support triaging COVID-19 patients (60%) and protocols to share (58%).

Conclusion Participating services have prepared to respond to COVID-19, but their capacity to respond may be limited by lack of staff support and resources. We propose recommendations to improve service preparedness and relieve unnecessary suffering.

Key message This study addresses an important gap in the preparedness of palliative care services in the Middle-East and North Africa region to respond to COVID-19 pandemic and other outbreaks.

Our survey led to seven recommendations aiming at improving their preparedness and supporting the region's health systems in relieving unnecessary suffering.

Key words palliative care; preparedness; COVID-19; pandemic; epidemic; Middle-East and North Africa

Running title MENA's palliative care services preparedness

Introduction

Elderly people and those with underlying health conditions, such as cancer, are most at risk of developing severe COVID-19 or dying.(1-3) Co-morbidities such as diabetes and cardiovascular disease are highly prevalent in the Middle-East, raising concerns for the progress of the pandemic in the region.(4) In weaker health systems, there is limited capacity to care for COVID-19 patients who require intensive care units due to moderate to severe forms of the disease or complex symptoms such as breathlessness.(5, 6)

Palliative care is explicitly recognized under the human right to health, relieving the suffering of patients and families and improving their quality of life and outcomes while saving healthcare costs.(7-9) The World Health Assembly has called on countries to provide palliative care in the clinical management of COVID-19 patients.(10, 11) This would address the emerging evidence for palliative care needs among COVID-19 patients, including physical symptoms (e.g. fever, breathlessness, fatigue, cough)(5, 12), spiritual distress related to survival, and psychological distress related to prognosis uncertainty.(13, 14)

Under the 2015 International Health Regulations (IHR), countries are required to prepare response plans for public health emergencies of international concern.(15, 16) However, preparedness plans routinely fail to include palliative care.(17-19). The role of palliative care in pandemic responses has been demonstrated, including sharing symptom management protocols and training non-palliative care healthcare workers, supporting patients' triage, and providing psychosocial and bereavement care.(11) The *"COVID-19 tsunami of suffering"* is likely to increase the need for palliative care, especially in low- and middle-income countries.(9)

In 2012, national health systems in the Middle East region used their influenza surveillance systems to detect the MERS-CoV, and most countries have tested their preparedness plans.(15, 20-26) In Middle Eastern countries with fragile or limited healthcare systems, the COVID-19 pandemic may cause enormous challenges to fragile health systems.(27, 28)

Palliative care in the Middle East and North African region is a relatively new development, with no country having fully integrated it within the health system.(29, 30) With a Muslim majority in the region, the pandemic may have an additional religious or spiritual impact for populations.(31-34) A systematic review of end-of-life care in Muslim-majority countries highlighted the central role of families in the decision-making process, as well as the need for spaces to perform rituals and to address preferences for pain management.(35) The preparedness and capacity of palliative care services to respond to COVID-19 in the MENA region is still unknown. To inform policy and appropriate and timely responses, we aimed to evaluate the preparedness and capacity to respond to COVID-19 within palliative care services of the Middle-East and North Africa region.

Method

Study design and settings

We developed, piloted, and conducted an exploratory cross-sectional online survey, using WHO's 2005 International Health Regulations (26) and online survey methodological guidelines.(36, 37)

Population and sampling

Non-probabilistic sampling combining convenience and snowball sampling was used to recruit representatives of palliative care services in the Middle-East and North Africa region: Afghanistan, Algeria, Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Pakistan, Qatar, Saudi Arabia, Syria, Tunisia, Turkey, United Arab Emirates, Yemen. We aimed to recruit at least one service per country and to have only one respondent per service. The services included hospices, hospital services, and home- and community-based care.

There is no comprehensive formal list, registry, or network of palliative care services for the Middle-East region. There are limited palliative care services and publicly-available information on the existing official registry of palliative care services for the countries that could give a framework to draw a representative sample of services. Therefore we identified services using publicly

available information and the research team's networks as follows. We yielded 60 contacts from the Atlases of Palliative Care, (38-40) International Association for Hospices and Palliative Care (IAHPC) directory, (41), and a rapid google and Pubmed search. We yielded a further 160 contacts from our professional networks, partners of Research For Health in Conflict in the Middle-East and North Africa (r4hc-mena.org), and disseminated our survey through the World Health Organization's Eastern Mediterranean Region (WHO-EMRO) network for palliative care. Countries from WHO-EMRO located in sub-Saharan Africa were approached in a separate survey we conducted with the African Palliative Care Association.(42)

Data collection

The original survey questionnaire was initially designed by researchers from Italy and the UK for an early assessment of the Italian palliative care response early during the COVID-19 pandemic who shared with us the questionnaire in English.(43) We further developed it to include existing international recommendations, especially the IHR, and evidence for generic preparedness to respond to infectious disease outbreaks or pandemics,(20, 24-26, 44-48) and recommendations for palliative care response and roles in epidemics and pandemics.(17, 18) R4HC-MENA research team members adapted the survey to the region using professional experience and key preparedness literature for the region.(20, 21, 27, 49) The full questionnaire was available in English and Arabic (see Additional files 1 and 2). It was developed in English then translated into Arabic by a bilinguistic professional translator, and the translations were reviewed by two independent experts. The translation was then tested during the pilot, where two researchers not involved in the translation completed both versions and gave feedback. No corrections were suggested.

Data were collected online using the *SmartSurvey*™ platform, permitting one answer per computer on the online platform, and enabled the anonymity function so IP addresses were not collected. The survey link was emailed to 190 contacts across the region, inviting them to participate (institutions providing care) and disseminate (via professional networks).

Recruitment to the online survey was opened on 05/26/20 and closed on 06/22/2020, with responses permitted until 06/26/2020. Reminders to complete the survey were sent twice during the period.

Data analysis

Descriptive analyses were conducted following de-duplication. Quantitative data were analysed using Stata (version 16): categorical variables described as frequencies and percentage; continuous variables as median and Interquartile Range (IQR). Open-ended questions were coded thematically, and the dominant themes reported.(50)

Ethics

Ethical approval was obtained from King's College Londons Research Ethics Office (reference LRS-19/20-19091). Data were collected and stored following the UK 2016 General Data Protection Regulation. Informed consent was obtained online from participants within the survey.

Findings

Respondents and COVID-19 situation in their services

There were 113 engagements with the online survey (65 for the English version and 48 for the Arabic one), 69 individuals completed the survey (37 in English and 32 in Arabic) of which 67 gave consent (completion rate: 59%). The final sample was 43 (33 English and 10 Arabic) after de-duplication. Of 21 countries in the region, 12 had a least one participant (57%). We received no participation from nine countries (Afghanistan, Algeria, Iraq, Qatar, Tunisia, United Arab Emirates, Yemen) (33%). For two countries (Libya and Syria) we could not identify a contact (9%).

Table 1 describes the participants' characteristics. Half were medical doctors (53%) and one-fifth were nurses (19%). Two in five services were public or governmental (40%) and the majority were hospital-based (84%). Responding services had a median of 500 patients per year (IQR: 200-2500; 4 missing data), and 33 services reported having beds (median: 13; IQR: 8-25).

At the time of the survey, two-thirds of respondents had experienced a COVID-19 case within their service, with a median of five cases (IQR: 3-10.5) (see Additional file 3). Most cases included patients (81%), and were identified in another service within the hospital (61%).

Policies and procedures

Table 2 describes the policies and procedures available or modified in response to the COVID-19 pandemic. While the vast majority reported having a written procedure for 'what to do' in case of COVID-19 in the service among patients, staff, volunteers (77-88%), a third did not have or were unsure (21% and 9% respectively) to have a COVID-19 case definition (confirmed, probable and suspect).

All but one service had modified at least one of their procedures in response to the COVID-19 pandemic, especially for operators' protection (91%) and visitors and relatives (88%). However, fewer had modified their volunteer support (56%) and Do Not Resuscitate (30%) policies, with one quarter not having these policies in place (i.e. N/A response; 23%).

Infection control measures and resources

The majority of participants reported having in place several measures to control infection and knew how to access resources in case of outbreak or lockdown (see Tables 3 and 4). All but one had handwashing facilities at entry points and half of those were there before COVID-19. Four in five provided additional protective equipment (PPE) for palliative care staff (84%) and cleaners (79%) and identified an isolation room (81%). A majority had up-to-date inventories of medicines and medical supplies (86%) and PPE (81%) available. Respondents knew how to dispose of highly infectious waste in the service (84%), had materials and facilities to dispose of it (91%), and had staff trained in handling highly infectious conditions (90%), of which half were trained before COVID-19. However, one third had concerns regarding access to essential resources for ensuring safe care**:** disinfectant products (37%), soap (35%), hand sanitizers (35%), running water (33%),

contactless thermometers (33%), and electricity (28%). These concerns were higher for access in the surrounding community.

Information systems, communication, and technology

The respondents had communication channels identified for use during the pandemic (see Additional file 4). Three in four had a designated focal point for collecting and sharing up-to-date information (72%). The majority would use mobile phones to receive information (77%) and phone calls to share information in case of emergency (65% with staff; 91% with patients and relatives).

Almost all services had up-to-date lists of patients and staff (93%), and collected patients' symptoms, outcomes (95%) and treatment (98%) (see Additional file 5). Two-thirds used electronic records to collect the latter health information (81%). However, two in five services did not collect visitors' and relatives' contact details or visit dates (37%).

The vast majority reported having the capacity to use technology to provide remote care (86%). Twenty-seven participants shared perceived advantages and disadvantages of using technology (see Additional file 6 – Table H). The key limitations were a lack of resources (e.g lack of internet coverage or devices for patients) (n=9); trust issues from users and cooperation from patients' family (n=4), appropriateness issues regarding age or condition (n=3) or a lack of body language to effectively communicate (n=3) were the most reported. One participant was concerned about relatives hiding information from the patients. However, several advantages were also shared, such as the ability to deliver care and manage patients remotely (n=8); and control of potential transmission (n=6).

Palliative care staff and expertise to support pandemic response

Respondents reported high anxiety among staff, especially risk to them of becoming infected (median score 8 on 1-10 scale; IQR: 7-9) and their ability to care for their relatives (median score 8

on 1-10 scale; IQR: 6-9) (see Table 5). However, only half of the services had a staff stress management procedure (53%).

Table 6 shows that responding services have the capacity to support the broader health system to respond to COVID-19. Three in five services had plans to support other healthcare settings in triaging COVID-19 patients (60%) and protocols to share for symptom management and psychological support (58%). Among the 25 respondents who could share those protocols, the majority declared they could train non-specialists in using them (72%). About half of the services had redeployment plans for palliative care staff and resources, although 20% did not know if they had such plans. A third of the services did not have or did not know about plans to redeploy volunteers.

Discussion

Our survey provides the first comprehensive assessment of the preparedness of palliative care services in the Middle-East and North African region to respond to a pandemic. Responding services have prepared to respond to COVID-19, but their capacity to respond may be limited by the lack of access to infection control basics and community-based services, especially in case of a lockdown. Lack of support to staff in managing their stress and anxiety is a major concern. This is crucial to equip them to deliver sustained care to existing non-COVID and new COVID-19 patients and their families, and to fulfil their potential in supporting the wider health service during the epidemic.

In line with findings from our recent survey of African palliative care services,(42) the respondents were aware of the communication channels to be used in case of emergency, had up-to-date lists of staff and patients that would facilitate contact tracing in case of an outbreak, and had modified policies regarding operators' protection and visits. However, among the MENA region's respondents, there was a higher proportion of services using electronic records, which would facilitate rapid contact tracing and patients' monitoring in case of an outbreak. The region has

developed Electronic Medical Records,(51, 52) (particularly in hospitals) and most respondents were hospital-based. However, it is important to note that our rapid survey may be biased towards most advanced services that are part of national or international networks. Further research would be needed to assess the penetration of electronic health information systems in more remote and non-hospital based palliative care services.

In line with recommendations on the role of palliative care services in responding to epidemics,(17) most services had protocols for symptom management and bereavement to share and were ready to support COVID-19 patients triage. This may be because two-thirds already had a COVID-19 case in the hospital they were based in or had learned from previous experience with MERS-CoV in the region. The lack of plans to redeploy staff, or resources, or of stress management procedures for staff identified threaten staff wellbeing and sustainability of patient care. The establishment of a regional association collecting and sharing protocols and resources in the languages of the region may help address this gap.

Regarding using technology to avoid face-to-face interactions, while the majority of services reported they had the capacity, it will be important to further investigate some of the barriers identified in the survey. The barriers reported by participants, such as lack of resources or trust issues, reflect those reported in the wider e-health implementation literature.(53) Further research is needed to assess access and reliability of the connectivity required for e-health in MENA countries, focusing on the specificities of the regional and cultural context and related to Muslim-majority countries.(35) Technology has advantages to reducing potential infections, and solutions to reaching hard-to-reach groups need to be further explored,(54) especially to reach out to forcibly displaced populations in a region widely affected by conflicts.

Strengths and limitations

This rapid survey provides the first comprehensive assessment of the preparedness of palliative care services in the MENA region. We used a standardised questionnaire using international guidelines

and standards adapted to the region, enabling international comparison. We have insights for 12 countries from the region with a broad geographical range. The lack of a comprehensive list of PC services in the region may have introduced a sampling bias, which may limit the generalisability of our findings, but we developed a plan to identify and include as many eligible participants as possible. It is noteworthy that the limited number of respondents per country may also demonstrate the difficulty in contacting and mobilising palliative care services in the region in response to public health emergencies of international concern. The questions regarding the availability of medicines that we used were generic as we used the IHR.(26) While detailed investigation into the challenges of drug availability was beyond the scope of this study, further investigation of the potential issues in accessing opioid, especially in MENA countries, is warranted. Finally, while having more than one respondent per service would have allowed capturing potentially different views from various staff, our criteria of sampling the individual responsible for the service gave a rapid assessment in an urgent context. Although we de-duplicated responses based on key characteristics, more than one participant may have responded from a single service.

Recommendations

This study provides urgently-needed primary evidence to inform policy and practice in the region. Of utmost importance, we call for appropriate resources to support staff and palliative care services. We propose the following recommendations for policy and practice.

1. Governments and services should ensure that basic water and sanitation are available to ensure a safe provision of palliative care with implementation of infection control measures.

2. Governments and services should also allocate funding to equip their palliative care facilities, staff, and potentially the patients' access to devices, such as mobile smartphone.(54)

3. All palliative care services need to acquire stress management protocols and offer services to support the staff. Palliative care staff wellbeing and views should be assessed, especially before deciding to redeploy them.

4. Palliative care services need to be involved in supporting and training non-specialist healthcare workers in complex questions related to the care of the dying. This is particularly relevant in light of the scarcity of resources faced by the health systems and healthcare professionals, raising ethical issues and difficult discussions related to the triage and resuscitation.(55)

5. We advise palliative care services in the region to develop DNR policies when absent and adapt them early before the crisis emerge.(56) Such decisions need to be evaluated using a social justice lens and inform ethical discussions on resuscitation debates on COVID-19.(57, 58) Palliative care services would need to ethically allocate their resources while maintaining dying patients' dignity, and ensure appropriate communication with caregivers.

6. We call on governments to integrate palliative care into the preparedness plans as recommended in the WHO publications, to prevent unnecessary suffering and foster a rapid and flexible response in case of public health emergencies. We also call on WHO to revise the IHR to support and evaluate countries' preparedness progress, and reflect the necessity of palliative care into the emergency.(17)

7. Finally, we propose the development of National Palliative Care Reference Centres (NPCRC) in the MENA region based on the model of National Reference Laboratories in the WHO-IHR.(16) Such centres could be rapidly mobilised and foster the achievement of Universal Health Coverage. The NPCRC could collect, compile and share the most up-to-date information and protocols with other palliative care services within their countries and the region; but also train non-specialists and less advanced or resourced palliative care providers in case of emergency, and beyond. They could be coordinated by a regional association or an existing network such as the WHO-EMRO palliative care expert network.

Tables

Table 1. Respondents' characteristics (N=43)

	n	%
Country		
Turkey	14	33
Jordan	12	28
Other (Bahrain, Egypt, Iran, Kuwait, Lebanon, Morocco, Oman, Pakistan, Palestine, Saudi Arabia: 1 to 3 respondents per country)	17	40
Respondent's current role(s):		
Doctor or medical officer	23	53
Nurse	8	19
Manager or responsible for the service and Doctor, Nurse or Psychosocial professional[1]	5	12
Manager or responsible for the service	3	7
Psychosocial professional	3	7
Other (Operations Manager)	1	2
Type of organisation:		
public	17	40
non-profit charity	*5*	12
mixed[2]	*4*	9
private	3	7
missing	*14*	33
Type of service:[3]		
within hospital	36	84
within community	13	30
outpatient	10	23
inpatient	7	16
Hospice/service having beds	33	77
Services which reported a case (possible, suspect or confirmed)	27	63

1. Doctor + Manager or responsible of the service (n=3); Nurse + Manager or responsible of the service (n=1); Nurse + Psychosocial professional + Manager or responsible of the service (n=1)

2. Mixte: public + non-profit (n=2); public + private (n=1)

3. Multiple choices allowed

Table 2. Procedures (or guidance) in place and policies modified (N=43)

	Yes	**No**	**Unsure or Don't know**	**Missing or N/A**
	n (%)	n (%)	n (%)	n (%)
Case definition for confirmed, probable and suspected COVID-19 cases	30 (70)	9 (21)	4 (9)	0 (0)
Written procedure for "what to do" in the service in case of COVID-19 case among:				
patients	38 (88)	4 (9)	0 (0)	1 (2)
healthcare professional staff member	38 (88)	3 (7)	1 (2)	1 (2)
volunteers and medical staff	35 (81)	5 (12)	2 (5)	1 (2)
relatives and visitors	33 (77)	6 (14)	3 (7)	1 (2)
staff and volunteers going in the community	28 (65)	7 (16)	7 (16)	1 (2)
Written procedure for "what to do" in the service in case of infectious diseases among:				
patients	28 (65)	6 (14)	5 (12)	4 (9)
relatives and visitors	24 (56)	7 (16)	7 (16)	5 (12)
healthcare professional staff member	30 (70)	4 (9)	6 (14)	3 (7)
volunteers and medical staff	26 (60)	5 (12)	7 (16)	5 (12)
staff and volunteers going in the community	19 (44)	8 (19)	12 (28)	4 (9)
Policies or procedures modified as a measure to avoid contagion:				
Operators' protection (Personal Protective Equipment)	39 (91)	1 (2)	0 (0)	3 (7)
Visitors/relatives (number of visitors, hours, etc.)	38 (88)	0 (0)	2 (5)	3 (7)
Dead body handling	35 (81)	4 (9)	3 (7)	1 (2)
Patients' admission to the service	34 (79)	1 (2)	3 (7)	5 (12)
Volunteer support	24 (56)	6 (14)	6 (14)	7 (16)
Care of the relatives after the patient's death	19 (44)	13 (30)	7 (16)	4 (9)

Do Not Resuscitate	13 (30)	16 (37)	4 (9)	10 (23)
Procedure to support healthcare providers to manage stress	23 (53)	16 (37)	4 (9)	0 (0)
Recommendations if you or someone in your household becomes ill with COVID-19 symptoms	39 (91)	3(7)	1 (2)	0 (0)

Table 3. Measures taken to avoid contagion (N=43)

	Additional ones / Trained because of COVID-19 n (%)	**Already before COVID-19** n (%)	**None** n (%)
Hand washing facility for all at points of entry	22 (51)	20 (47)	1 (2)
Personal Protection Equipment (PPE) for:			
palliative care staff	36 (84)	6 (14)	1 (2)
cleaning staff[1]	34 (79)	7 (16)	1 (2)
All healthcare providers have been trained in handling highly infectious conditions such as COVID-19	16 (37)	23 (53)	4 (9)

1. 1 missing data

Table 4. Resources available and access and knowledge (N=43)

	Yes	***No***	**Don't know/ Not sure**	**Missing**
	n(%)	n(%)	n(%)	n(%)
Adequate material and facilities to dispose of highly infectious waste				
in the hospice	39 (91)	4 (9)	0	0
in the community	19 (44)	6 (14)	17 (40)	1 (2)
Up-to-date inventory of				
protection material available for staff, patient and visitors	35 (81)	2 (5)	2 (5)	0 (0)
medicines and other medical supplies available	37 (86)	2 (5)	2 (5)	0 (0)
Capacity to use technology instead of face-to-face appointment to provide some care remotely	37 (86)	*6 (14)*	-	-
Phone call	34 (92)	*3 (8)*	-	-
Video call	20 (54)	*17 (46)*	-	-
Concerns about the service/hospice's access to:				
disinfectant products	16 (37)	26 (60)	-	1 (2)
soap	15 (35)	25 (58)	-	3 (7)
hand sanitizers (with 60% alcohol)	15 (35)	27 (63)	-	1 (2)
running water	14 (33)	28 (65)	-	1 (2)
thermometers (contactless, Thermoflash-type)	14 (33)	28 (65)	-	1 (2)
Electricity	12 (28)	30 (70)	-	1 (2)
Having concerns about the surrounding's access to:				
accessing disinfectant products to continue providing care safely	20 (47)	20 (47)	-	3 (7)
hand sanitizers (with 60% alcohol)	19 (44)	21 (49)	-	3 (7)
thermometers (contactless, Thermoflash-type)	15 (35)	24 (56)	-	4 (9)
soap	13 (30)	22 (51)	-	8 (19)
running water	11 (26)	27 (63)	-	5 (12)

Electricity	9 (21)	27 (63)	-	7 (16)
Knowledge of how the hospice/service would access to the following in case of emergency, lockdown or quarantine:				
food (N=36 - for hospital-based or inpatient services only)	31 (86)	11 (26)	-	1 (4)
medicines and other medical supply	38 (88)	5 (12)	-	0 (0)
additional staff (e.g. if staff self-isolates or becomes ill)	37 (86)	4 (9)	-	2 (5)
Knowledge of how to dispose of to dispose of highly infectious waste:				
in the hospice or service	36 (84)	4 (9)	-	3 (7)
in the community	27 (63)	9 (21)	-	7 (16)
Cleaning staff included in information sharing and training regarding managing COVID-19	34 (79)	3 (7)	-	6 (14)
Having education material about COVID-19 available	36 (84)	6 (14)	-	1 (2)
Posters displayed where staff, patients and visitors can see them (N=36)	33 (92)	3 (8)	-	-
Education material also available for the surrounding community (N=36)	31 (86)	1 (2)	-	1 (2)

Table 5. Perceived effects of COVID-19 on staff and risks for the service (N=43)

	Median (IQR)
Perceived effects on staff:	
anxious about getting infected themselves[1]	8 (7-9)
anxious about the need to care for their own relatives[1]	8 (6-9)
anxious about the need to care for their children who may not be at school[1]	8 (6-9)
worried regarding potential issues for their interaction with the community if the service is known to manage a potential COVID-19 case[1]	7 (5-8)
Perception of the risks in the coming week:[2]	
hospice/palliative care staff are at risk of being infected by COVID-19	5.5 (4-7)
hospice/palliative care service is at risk of closing because of an infection in the hospice or service	5 (2-7)

1. 2 missing data

2. 1 missing data

Table 6. Palliative care expertise to support the broader health system (N=43)

	Yes	***No***	**Don't know or N/A**	**Missing**
	n(%)	n(%)	n(%)	n(%)
Plans to redeploy at least one of the following outside of the inpatient settings, in case of outbreak COVID-19 or another highly infectious disease				
Healthcare providers	21 (49)	10 (23)	8 (19)	4 (9)
Resources (material and supplies)	19 (44)	10 (23)	8 (19)	6 (14)
Volunteers	12 (28)	10 (23)	6 (14)	7 (16)
Plans to support other healthcare services in the triage of patients in case of COVID-19 outbreak	26 (60)	15 (35)	- (-)	2 (5)
Palliative care protocols for symptom management and psychological support that could be shared with non-specialist staff and/or COVID-19 response teams in other healthcare facilities	25 (58)	17 (40)	- (-)	1 (2)
If yes, capacity to train non-specialist in using these protocols (N=25)	18 (72)	6 (24)	- (-)	1 (4)

Disclosures:

Authors' contributions:

SB and RH developed the original protocol; SB, RH, OS, TK adapted the survey questionnaire and protocol; SB, RH, OS, TK, AH and NP commented on the methods and conducted data collection; SB conducted the analysis and drafted the manuscript; SB, RH, OS, TK, AH and NP interpreted the findings. All authors revised and approved the final draft.

Conflict of interest statements:

No conflict of interest to disclose.

Ethics committee approval:

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Additional files

Additional file 1. Questionnaire in English

Note: Question with an asterisk were compulsory

COVID-19 preparedness in hospices and palliative care services in the Middle-East and North Africa

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ABOUT YOU AND YOUR SERVICE

***In which country is your service in?**

☐ Afghanistan	☐ Kuwait	☐ Qatar
☐ Algeria	☐ Lebanon	☐ Saudi Arabia
☐ Bahrain	☐ Libya	☐ Syria
☐ Egypt	☐ Morocco	☐ Tunisia
☐ Iran	☐ Oman	☐ Turkey
☐ Iraq	☐ Palestine	☐ United Arab Emirates
☐ Jordan	☐ Pakistan	☐ Yemen

Characteristics of your hospice/palliative care service:

- Approximate number of patients seen per year:
- *Type of hospice and/or service: *(tick all that applies)*

☐ Private	☐ Non-profit charity	☐ Government or public
☐ Within a hospital	☐ Within community	
☐ Inpatient hospice	☐ Outpatient hospice	☐ Other, please specify:

- Do you have beds: ☐ Yes ☐ No

IF YES, Number of beds:

What is your current role?** ***(tick all that applies)

☐ Doctor or medical officer

☐ Nurse

☐ Psychosocial professional

☐ Manager or responsible of the hospice or palliative care service

☐ Other, please specify:

CURRENT COVID-19 SITUATION IN YOUR SERVICE

1. *Did you have a suspected or confirmed cases of COVID-19 in your service or in the hospital you are based in? ☐ yes,

confirmed cases ☐ yes, probable cases ☐ yes, suspect cases ☐ no **(If no, go to Q.2)**

IF YES:

- **Who was positive?** (tick all that applies)

☐patients

☐relatives

☐physicians

☐nurses

☐volunteers

☐ other (e.g. administrative or cleaning staff), please specify:

- **How many cases did you have (specify numbers for suspected, probable, confirmed)?**
- **Where were the cases identified?**

  ☐ your service or hospice ☐ another service of the hospital you are based in

- **How were they identified?** (e.g. who informed you, which communication means (phone, email, etc.)
- **What was done?** (e.g. reporting, referral, containment measures, protection of and communication with staff and users, etc.)
- **What were the consequences?** (e.g. for your service, yourself, your interaction with the community, etc.)

WRITTEN PROCEDURES (OR GUIDANCE)

2.1 *Do you have a case definition for confirmed, probable and suspected COVID-19 cases?

☐ yes ☐ no ☐ don't know/not sure

2.2 Do you have a written <u>procedure for "what to do"</u> if you have a <u>confirmed, probable and/or suspected</u> COVID-19 case in your service <u>among</u>:

	Procedure specific to COVID-19	**Procedure for infectious diseases in general or to another specific highly infectious disease** (e.g. influenza, Ebola, tuberculosis, etc.) **Please specify for which disease(s):**
- patients	☐ yes ☐ no ☐ don't know	☐ yes ☐ no ☐ don't know
- relatives and visitors	☐ yes ☐ no ☐ don't know	☐ yes ☐ no ☐ don't know
- healthcare professional staff member	☐ yes ☐ no ☐ don't know	☐ yes ☐ no ☐ don't know
- volunteers and medical staff	☐ yes ☐ no ☐ don't know	☐ yes ☐ no ☐ don't know
- staff and volunteers going in the	☐ yes ☐ no ☐ don't know	☐ yes ☐ no ☐ don't know

community		
- Other, please specify:	☐ yes ☐ no ☐ don't know	☐ yes ☐ no ☐ don't know

2.3 Do you have a procedure to support healthcare providers to manage stress? ☐ yes ☐ no ☐ don't know

(optional) Please specify or comment:

(optional) Additional thoughts on policies and protocols?

MEASURES IN PLACE (TO AVOID CONTAGION)

3.1 Did you <u>modify</u> any of the following policies or procedures as a measure to avoid contagion?

Please tick N/A if you do not have the corresponding policy or procedure in place

- Policy for visitors / relatives (number of visitors, hours etc.) ☐ yes ☐ no ☐ not sure ☐ N/A
- Policy for operator protection (Personal Protective Equipment) ☐ yes ☐ no ☐ not sure ☐ N/A
- Policy for patients' admission to the hospice ☐ yes ☐ no ☐ not sure ☐ N/A
- Volunteer support policy ☐ yes ☐ no ☐ not sure ☐ N/A
- Policy on how to handle dead patients ☐ yes ☐ no ☐ not sure ☐ N/A
- 'Do Not Resuscitate' (DNR) policy ☐ yes ☐ no ☐ not sure ☐ N/A
- Policy regarding care of the relatives after the patient's death ☐ yes ☐ no ☐ not sure ☐ N/A
- Other policy modified, please specify:

IF YOU ANSWERED YES TO ANY OF THE ABOVE:

Did you change the policies following the instructions from health management or regional authorities, or did your hospice take them spontaneously? ☐ following the instructions ☐ spontaneously ☐ both

3.2 Do you have in place any of the following measures to protect staff and patients:

- Hand washing facility for all at points of entry (soap and running water or hand sanitizers with 60% alcohol):

☐ Yes, we put additional ones ☐ We already had them in place before COVID-19 ☐ No, we do not have such facility

- Personal Protection Equipment (PPE) for:

- **palliative care staff**: ☐ Yes, we put additional ones ☐ Not more than usual ☐ No, we do not have PPE
- **cleaning staff**: ☐ Yes, we put additional ones ☐ Not more than usual ☐ No, we do not have PPE

- Isolation room identified in case of infectious conditions, like COVID-19: ☐ Yes ☐ No ☐ N/A (outpatient service only)

- Recommendations if you or someone in your household becomes ill with COVID-19 symptoms

☐ yes ☐ no ☐ don't know

IF YOU ANSWERED YES TO ANY OF THE ABOVE:

Did you put the measure in place following the instructions from health management or regional authorities, or did your hospice take them spontaneously?

☐ following the instructions ☐ spontaneously ☐ both

3.3 Have all healthcare providers been trained in handling highly infectious conditions such as COVID-19?

☐ Yes, trained before COVID-19 pandemic ☐ Yes, trained because of COVID-19 pandemic ☐ Not trained

3.4 Do you <u>know</u> how to dispose of highly infectious waste?

- in the hospice or service ☐ Yes ☐ No ☐ N/A (outpatient service only)
- in the community ☐ Yes ☐ No ☐ N/A (inpatient/hospice service only)

3.5. Was the cleaning staff included in information sharing and training regarding managing COVID-19?

(e.g. adapting practice in case of COVID-19 suspected) ☐ Yes ☐ No ☐ Don't know/Not sure

(optional) Additional thoughts on measures in place to avoid contagion:

COMMUNICATION AND COORDINATION

4.1 How would you be informed if there is a confirmed or suspected case in the hospice or in the locality?

- Who or which institution will inform your hospice or service?
- Who will be informed in your hospice or service (position or job title)?
- Communication system(s) that will be used (tick all that applies)

☐ Mobile phone available 24/7

☐ Telephone (in the service)

☐ Email

☐ WhatsApp/Viber group

☐ Other, please specify:

4.3 Is there a focal point person identified in the hospice or service responsible for collecting and sharing up-to-date information (about health recommendations, cases, protocols to use): ☐ yes ☐ no ☐ not sure

Please specify (job title/position):

4.4 What communication means are in place to share COVID-19 or other urgent information with…

(tick all that applies)

- the staff? ☐ Text message ☐ WhatsApp/Viber ☐ Phone call ☐ Email ☐ None ☐ Other, specify
- patients? ☐ Text message ☐ WhatsApp/Viber ☐ Phone call ☐ Email ☐ None ☐ Other, specify
- relatives, visitors? ☐ Text message ☐ WhatsApp/Viber ☐ Phone call ☐ Email ☐ None ☐ Other, specify

4.5 Do you have an up-to-date contact list of…

- **all staff** working in or for the hospice or service (medical, administrative, cleaning staff, etc.)? ☐ Yes, a paper-based registry ☐ Yes, an electronic record ☐ No ☐ Other:
- **all patients** that attended or have attended the hospice or service? ☐ Yes, a paper-based registry ☐ Yes, an electronic record ☐ No ☐ Other:
- **all relatives** that visited or have visited the hospice or service? ☐ Yes, a paper-based registry ☐ Yes, an electronic record ☐ No ☐ Other:
- **patients visited in the community?** ☐ Yes, a paper-based registry ☐ Yes, an electronic record ☐ No ☐ Other:

4.6 Do you have a system collecting information about…

- **Patients' symptoms?** ☐ Yes, a paper-based registry ☐ Yes, an electronic record ☐ No ☐ Other:
- **Patients' outcomes?** ☐ Yes, a paper-based registry ☐ Yes, an electronic record ☐ No ☐ Other:
- **Treatment given?** ☐ Yes, a paper-based registry ☐ Yes, an electronic record ☐ No ☐ Other:
- **Dates of patients' visits or stay?** ☐ Yes, a paper-based registry ☐ Yes, an electronic record ☐ No ☐ Other:
- **Dates of relatives' visits?** ☐ Yes, a paper-based registry ☐ Yes, an electronic record ☐ No ☐ Other:

(optional) Additional thoughts on communication and coordination?

5. RESOURCES

5.1 Do you have concerns about access to…

	in your hospice or service?	**in the surrounding community?**
- **running water?**	☐ yes ☐ no	☐ yes ☐ no
- **soap?**	☐ yes ☐ no	☐ yes ☐ no
- **hand sanitizers (with at least 60% alcohol)?**	☐ yes ☐ no	☐ yes ☐ no
- **electricity?**	☐ yes ☐ no	☐ yes ☐ no
- **thermometers (contactless, *Thermoflash*-type)?**	☐ yes ☐ no	☐ yes ☐ no
- **accessing disinfectant products to continue providing care safely?**	☐ yes ☐ no	☐ yes ☐ no
- **other, please specify:**	☐ yes ☐ no	☐ yes ☐ no

5.2 Do you have adequate material and facilities to dispose of highly infectious waste…

- in the hospice? ☐ yes ☐ no ☐ don't know/not sure
- in the community? ☐ yes ☐ no ☐ don't know/not sure

5.3 Do you have an up-to-date inventory of…

- protection material available for staff, patient and visitors *(hygiene and sanitation materials, protection material like masks, etc.)*? ☐ yes ☐ no ☐ not sure
- medicines and other medical supplies available to care for the patients? ☐ yes ☐ no ☐ not sure

5.4 Do you have the capacity to use technology instead of face-to-face appointment to provide some care remotely? yes no

IF YES, please specify:

- which technology? (tick all that applies): ☐ Phone call ☐ Video call ☐ Other, please specify:
- which service can be provided remotely? *(e.g. psychological support, spiritual care, grief and bereavement, managing the end of life phase, etc.)*
- what has worked well when using virtual technologies?
- what was difficult when using technologies?

IF NO, please specify:

- what are your limitations to use technology?
- what would facilitate your use of technology?

5.5 In case of emergency, lockdown or quarantine, do you know how your hospice would access to:

(e.g. Local/national authorities' stocks, private supplier, transportation, etc.)

- food *(for inpatient services only)*? ☐ yes ☐ no
- medicines and other medical supply? ☐ yes ☐ no
- additional staff *(e.g. if staff self-isolates or becomes ill)*? ☐ yes ☐ no

(optional) Please specify:

5.6 Do you have education material about COVID-19 available? ☐ yes ☐ no

IF YES, are there posters displayed where staff, patients and visitors can see them? ☐ yes ☐ no

are they also available for the surrounding community? ☐ yes ☐ no

Please specify:

- *Which education material do you have?*
- *How you did you get the education material?*

(optional) Additional thoughts on resources:

6. EFFECTS ON STAFF

6.1 Did you observe that some staff suddenly did not come to work without justification *(i.e. more than usual)*? ☐ yes ☐ no ☐ not sure

6.2 In your opinion, how anxious are your staff about the need to care for their children who may not be at school? From 1 to 10 (1-not at all anxious; 10-extremely anxious)

☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10**

(not at all) (extremely)

6.3 In your opinion, how anxious are your staff about the need to care for their own relatives?

From 1 to 10 (1-not at all anxious; 10-extremely anxious)

☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10**

(not at all) (extremely)

6.4 In your opinion, how anxious are your staff about getting infected themselves?

From 1 to 10 (1 – not at all anxious; 10-extremely anxious)

☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10**

(not at all) (extremely)

6.5 How worried are you regarding potential issues for your interaction with the community if your hospice or service is known to manage a potential COVID-19 case?

From 1 to 10 (1-not at all worried; 10-extremely worried)

☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10**

(not at all) (extremely)

(optional) Additional thoughts on other potential effects of the COVID-19 on you and your staff:

7. PERCEPTION OF THE RISK

In the coming week ….

7.1 How much do you think hospice/palliative care staff are at risk of being infected by COVID-19?

From 0-10 (0 no risk - 10 maximum risk you can imagine)

☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10**

(none) (maximum)

7.2 How much do you think the hospice/palliative care service is at risk of closing because of an infection in the hospice or service? From 0-10 (0 no risk - 10 maximum risk you can imagine)

☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10**

(none) (maximum)

7.3 Do you have any security concerns for yourself or your staff? yes no

IF YES, *please specify…*

(optional) Additional thoughts on other potential effects of the COVID-19 on your staff:

8. PREPARING TO OFFER SUPPORT

8.1 Do you have palliative care protocols for symptom management and psychological support that could be shared with non-specialist staff and/or COVID-19 response teams in other healthcare facilities: ☐ yes ☐ no

IF YES, do you have the capacity to train non-specialist in using these protocols: ☐ yes ☐ no

Optional: what are your limitations to share your expertise?

Optional: what could facilitate the sharing of your expertise?

8.2 In case of outbreak COVID-19 or another highly infectious disease, do you have plans to redeploy the following outside of the inpatient settings?

- **Healthcare providers** ☐ yes ☐ no ☐ don't know ☐ N/A
- **Volunteers** ☐ yes ☐ no ☐ don't know ☐ N/A
- **Resources (material and supplies)** ☐ yes ☐ no ☐ don't know ☐ N/A

IF YES to any of the above:

Please specify in which settings they be re-deployed *(e.g. community settings, another service, etc.)*?

8.3 Do you have plans to support other healthcare services in the triage of patients in case of COVID-19 outbreak? ☐ yes ☐ no

(optional) Comment:

ADDITIONAL COMMENTS

What do you foresee will be the biggest challenges for COVID-19 in your service over the next 1-2 months?

What would help you most to overcome these?

Do you think there are relevant information we have omitted to ask you?

What are your biggest worries or concerns?

Feel free to share any additional thought or comment:

OPTIONAL:

Would you like to receive the results of this survey via e-mail? ☐ yes ☐ no

Would you like to be contacted in the future about opportunities about research on or advocacy for palliative care? ☐ yes ☐ no

If yes to any of the above, please share your contact details (name, organization, email):

Please note: We will separate this information from your responses to the questions, and only selected team members at King's College London (KCL) will access it. Please note that if you agree

to share your contact details, your reply will no longer be anonymous to the KCL research team. Your answers will be treated confidentially, and your data will be held securely.

FINAL INFORMATION

You can find information about COVID-19 and Palliative Care in the following resources:

- Cicely Saunders Institute for Palliative Care and Rehabilitation, King's College London www.kcl.ac.uk/cicelysaunders/resources/links
- Worldwide Hospice Palliative Care Alliance www.thewhpca.org/covid-19
- European Association for Palliative Care www.eapcnet.eu/publications/coronavirus-and-the-palliative-care-response

You can find information about COVID-19 in the following resources:

- World Health Organization (WHO) www.who.int/emergencies/diseases/novel-coronavirus-2019
- WHO EMRO www.emro.who.int/health-topics/corona-virus/information-resources.html
- WHO EURO www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19

If you have questions or concerns, please contact Sabah Boufkhed: sabah.boufkhed@kcl.ac.uk

Thank you very much for your time and for taking part in the survey.

Additional file 2. Questionnaire in Arabic

جاهزية دور الرعاية وخدمات العناية التلطيفية لفيروس كورونا المستجد كوفيد-19 في الشرق الأوسط وشمال إفريقيا

أسئلة عنك وعن الوحدة التي تعمل بها

***في أية دولة تقع الوحدة التي تعمل بها؟**

قطر	الكويت	أفغانستان
السعودية	لبنان	الجزائر
سوريا	ليبيا	البحرين
ونس	المغرب	مصر
ركيا	عمان	إيران
الإمارات	فلسطين	العراق
اليمن	الباكستان	الأردن

مواصفات دار الرعاية/وحدة العناية التلطيفية:

عدد المرضى الذين يتم معاينتهم سنوياً:...

*نوع دار الرعاية أو وحدة العناية التلطيفية: (قم باختيار جميع الخيارات المنطبقة على إجابتك):

خاص

خيري غير ربحي

حكومي

جزء من مستشفى

مجتمعي

دار رعاية للمرضى المنومين

عيادات دار رعاية

أخرى، قم بذكرها:

هل هنالك أسرّة في الوحدة التي تعمل بها؟ نعم/لا

في حال كانت الاجابة نعم، لطفاً قم بكتابة عدد الأسرة:

***ما هو دورك الحالي؟**

(قم باختيار جميع الخيارات المنطبقة على إجابتك)

طبيب أو مسؤول طبي /ممرض/مدير أو مسؤول عن دار الرعاية أو وحدة العناية التلطيفية / الأخصائي النفسي والاجتماعي / أخرى، قم بذكرها

1. الوضع الوبائي لفايروس كورونا المستجد كوفيد-19 في الوحدة التي تعمل بها

1. ***هل لديك حالة مؤكدة أو مشكوك بإصابتها بفايروس كورونا المستجد كوفيد-19 في الوحدة أو دار الرعاية التي تعمل بها؟**

نعم، حالة مؤكدة

نعم، حالة محتملة

نعم، حالة مشكوك بإ□ابتها

لا

لست متأكداً، لطفاً قم بذكرها...

إذا كانت الإجابة لا، انتقل إلى السؤال الثاني.

إذا كانت الإجابة نعم (حالة مؤكدة، حالة محتملة ، حالة مشكوك بإصابتها):

من هم المشخصون بفايروس كورونا المستجد كوفيد-19؟

(قم باختيار جميع الخيارات المنطبقة على إجابتك)

مرضى

أقرباء المرضى

أطباء

ممرضون

متطوعون

آخرى (كالإداريين أو طواقم التنظيف)، قم بذكرها

أين تم تشخيص الحالات؟

في الوحدة أو دار الرعاية التي□عمل بها

وحدة أخرى في ذات المستشفى الذي□عمل به

كم حالة تواجدت لديك؟

(قم بذكرها بالتفصيل من حيث المشكوك بإ□ابتهم أو المحتمل إ□ابتهم أو المؤكد إ□ابتهم).

كيف تم التقصي عنهم؟

(مثال: من قام بتبليغك؟ ما هي طريقة التبليغ؟ عبر الها□ف أم عبر البريد الالكتروني؟ إلخ).

ماذا كان الإجراء المتبع؟

(مثال: التقرير، التحويل، إجراءات الاحتواء، حماية الطاقم والتوا□ل معهم، إلخ)

ماذا كانت التبعات؟

(مثال: التبعات على وحد□ك، عليك□خصياً، على□عاملك مع المجتمع، إلخ)

2. الإجراءات أو الإرشادات الخطية

2.1 *هل لديكم تعريف للحالات المؤكد إصابتها والمحتمل إصابتها والمشكوك إصابتها بفايروس كورونا المستجد كوفيد-19؟

نعم

لا

لا أعرف / لست متأكداً

2.2 هل لديكم إجراءات خطية للتعامل مع الحالات المؤكد إصابتها والمشكوك بإصابتها والمحتمل إصابتها في الوحدة التي تعمل بها لكل من

	إجراء لكوفيد-19 على وجه الخصوص	**إجراء للأمراض المعدية بشكل عام أو لأمراض معينة معدية بشكل كبير (كالانفلونزا أو الإيبولا أو السل)* لطفاً قم بتحديد المرض ...**
المرضى	نعم/لا/لا اعلم	نعم/لا/لا اعلم
الأقارب والزوار	نعم/لا/لا اعلم	نعم/لا/لا اعلم
موظفو الرعاية الصحية	نعم/لا/لا اعلم	نعم/لا/لا اعلم
المتطوعون والطواقم الطبية	نعم/لا/لا اعلم	نعم/لا/لا اعلم
الموظفون والمتطوعون المخالطون للمجتمع	نعم/لا/لا اعلم	نعم/لا/لا اعلم

أخرى، *قم بذكرها	نعم/لا/لا اعلم	نعم/لا/لا اعلم

2.3 هل لديكم إجراءات لدعم موظفي الرعاية الصحية للتعامل مع التوتر والقلق؟ نعم/لا/لا أعلم

(اختياري) لطفاً أذكرها وأكتبها علياً

(اختياري) قم بذكر أية أفكار أو اقتراحات فيما يتعلق بالسياسات والبروتوكولات

3. الإجراءات المتبعة لتجنّب التفشّي

3.1 هل قمت بتعديل أي من السياسات أو الإجراءات التالية بهدف تجنّب التفشّي؟

لطفاً قم بالإشارة على (غير متوفر) إذا لم تكن السياسة أو الإجراء متبعاً لديكم

-سياسات الزوار والأقارب (كعدد الزوار وساعات الزيارة)	نعم/لا/لست متأكداً/غير متوفر
-سياسات حماية العاملين (معدات الوقاية الشخصية)	نعم/لا/لست متأكداً/غير متوفر
-سياسات إدخال المرضى إلى دار الرعاية	نعم/لا/لست متأكداً/غير متوفر
-سياسات التطوع	نعم/لا/لست متأكداً/غير متوفر
-سياسات التعامل مع المرضى المتوفين	نعم/لا/لست متأكداً/غير متوفر
-سياسات عدم الانعاش	نعم/لا/لست متأكداً/غير متوفر
-سياسات العناية بأقارب المتوفى بعد وفاته	نعم/لا/لست متأكداً/غير متوفر
-سياسات أخرى، لطفاً قم بذكرها...	

في حال كانت إجابتك "نعم" لأي من الأسئلة أعلاه:

هل قمت بتغيير السياسات تبعاً لتعليمات الإدارة الصحية أو السلطات المحلية، أم أن دار الرعاية التي تعمل بها قامت بتعديلها تلقائياً؟

□بعاً للتعليمات/بشكل□لقائي/لكلا السببين

3.2 هل يتم اتباع أي من الإجراءات التالية لحماية الطاقم والمرضى:

-محطات تغسيل اليدين في كافة نقاط الدخول (الصابون والماء أو المعقمات اليدوية بنسبة كحول 60%:

نعم، قمنا بإضافة محطات أخرى/كانت متوفرة قبل وباء كوفيد-19/لا، ليست لدينا أية محطات كالمذكورة أعلاه

-معدات الوقاية الشخصية لكل من:

*طاقم العناية التلطيفية: *نعم، قمنا بإضافة معدات إضافية/لا□يء أكثر من المعتاد/لا، ليست لدينا معدات وقاية□خصية*

*طاقم التنظيف: *نعم، قمنا بإضافة معدات إضافية/لا□يء أكثر من المعتاد/لا، ليست لدينا معدات وقاية□خصية*

-غرف العزل للحالات المعدية ككوفيد-19: نعم/لا/غير متوفر (للعيادات الخارجية)

-توصيات لك أو لأحد أهل بيتك في حال إصابته بأعراض كوفيد-19: نعم، لطفاً قم بذكرها/لا/لا أعلم

<u>إذا كانت إجابتك "نعم" لأي من المذكور أعلاه:</u>

هل قمت بتفعيل الإجراءات تبعاً لتعليمات الإدارة الصحية أو السلطات المحلية، أم أن دار الرعاية التي تعمل بها قامت بتعديلها تلقائياً؟ □بعاً للتعليمات/بشكل□لقائي/لكلا السببين

3.3 هل تم تدريب جميع موفري الرعاية الصحية على كيفية التعامل مع الحالات شديدة العدوى ككوفيد-19؟

نعم،□م□دريبهم قبل وباء كوفيد-19 /نعم،□م□دريبهم□بعاء لوباء كوفيد-19/لم يتم□دريبهم

3.4 هل أنت على علم بكيفية التخلص من النفايات عالية العدوى؟

-في دار الرعاية أو الوحدة التي□عمل بها: نعم/لا/غير متوفر

-في المجتمع: نعم/لا/غير متوفر

3.5 هل تم تدريب طواقم التنظيف وإطلاعهم على المعلومات المتعلقة بالتعامل مع وباء كوفيد-19؟

(التكيف مع التعامل مع حالات كوفيد-19 المشكوك بها)

نعم/لا/غير متوفر لا أعرف / لست متأكداً

(اختياري) هل لديك أية أفكار أو اقتراحات بخصوص الإجراءات المتبعة لتجنب التفشي؟

4. التواصل والتنسيق

4.1 كيف يتم تبليغكم بوجود حالات مؤكدة أو مشكوك بأمرها في دار الرعاية أو في الجوار؟

-ما هي الجهة أو المؤسسة التي□قوم بتبليغ دار الرعاية أو الوحدة التي□عمل بها؟

-من هو المبلَّغ بالأمر في دار الرعاية أو الوحدة التي□عمل بها؟ (مسماه الوظيفي أو منصبه)

-نظم التوا□ل المتبعة (قم باختيار جميع الخيارات المنطبقة على إجابتك)

( ) هاتف نقال متوفر على مدار الساعة

( ) هاتف متوفر في الوحدة

( ) بريد الكتروني

( ) مجموعة على□طبيق الوا□ساب أو الفايبر

( ) أخرى، لطفاً قم بذكرها...

4.3 هل هنالك موظف ارتباط في دار الرعاية أو الوحدة الخاصة بك معنيّ بجمع ومشاركة أحدث المعلومات؟

(لك المتعلقة بالتو يات الصحية أو الحالات أو البرو وكولات المتبعة) نعم/لا/لست متأكداً

لطفاً قم بذكر منصبه أو مسماه الوظيفي:

4.4 ما هي وسائل التواصل المتبعة لمشاركة المعلومات المتعلقة بكوفيد-19 أو أية معلومات طارئة مع كل من:

(قم باختيار جميع الخيارات المنطبقة على إجابتك)

-الطاقم: رسالة نصية/وا ساب/فايبر/مكالمة ها فية/بريد الكتروني/لا يوجد وسائل/أخرى، قم بذكرها أدناه

-المرضى: رسالة نصية/وا ساب/فايبر/مكالمة ها فية/بريد الكتروني/لا يوجد وسائل/أخرى، قم بذكرها أدناه

-الأقارب والزوار: رسالة نصية/وا ساب/فايبر/مكالمة ها فية/بريد الكتروني/لا يوجد وسائل/أخرى، قم بذكرها أدناه

4.5 هل لديك قائمة جهات إتصال محدثة لكل من:

-الطاقم، سواء العاملين في دار الرعاية أو الوحدة أو العاملين لصالحها (الطواقم الطبية أو الإدارية أو طواقم التنظيف إلخ):

نعم، يوجد سجل ورقي/نعم، يوجد سجل الكتروني/لا/أخرى...

-المرضى الذين حضروا إلى دار الرعاية أو الوحدة:

نعم، يوجد سجل ورقي/نعم، يوجد سجل الكتروني/لا/أخرى

-الأقارب الذين قاموا بزيارة دار الرعاية أو الوحدة:

نعم، يوجد سجل ورقي/نعم، يوجد سجل الكتروني/لا/أخرى

-المرضى الذين تمت زيارتهم في المجتمع:

نعم، يوجد سجل ورقي/نعم، يوجد سجل الكتروني/لا/أخرى

4.6 هل لديك نظام لجمع المعلومات لكل من:

-أعراض المرضى:

نعم، يوجد سجل ورقي/نعم، يوجد سجل الكتروني/لا/أخرى

-نتائج المرضى:

نعم، يوجد سجل ورقي/نعم، يوجد سجل الكتروني/لا/أخرى

-العلاجات المعطاة:

نعم، يوجد سجل ورقي/نعم، يوجد سجل الكتروني/لا/أخرى

-تواريخ مكوث المرضى:

نعم، يوجد سجل ورقي/نعم، يوجد سجل الكتروني/لا/أخرى

-تواريخ زيارة الأقارب:

نعم، يوجد سجل ورقي/نعم، يوجد سجل الكتروني/لا/أخرى

(اختياري) هل لديك أية أفكار أو اقتراحات متعلقة بالتوا□ل والتنسيق؟

5. الموارد

5.1 هل لديك قلق أو شكوك فيما يتعلق بتوفر...

	في دار الرعاية أو الوحدة	**في المجتمع المحيط**
الماء	نعم/لا	نعم/لا

الصابون	نعم/لا	نعم/لا
معقمات الأيدي (بنسبة كحول لا تقل عن 60%)	نعم/لا	نعم/لا
الكهرباء	نعم/لا	نعم/لا
موازين الحرارة (بتقنية القياس عن بعد)	نعم/لا	نعم/لا
المواد المعقمة لضمان توفير الرعاية الصحية بشكل آمن	نعم/لا	نعم/لا
أخرى، لطفاً قم بذكرها	نعم/لا	نعم/لا

5.2 **هل لديك مواد و منشآت كافية للتخلص من النفايات شديدة العدوى؟**

-**في دار الرعاية:** نعم/لا/لا أعلم، لست متأكداً

-**في المجتمع:** نعم/لا/لا أعلم،لست متأكداً

5.3 **هل لديك خزينة حديثة من كل من:**

-**مواد الحماية المتوفرة لكل من الطاقم والمرضى والزوار** (مواد النظافة والتعقيم أو مواد الوقاية كالكمامات إلخ)**:** نعم/لا/لست متأكداً

-**الأدوية والمعدات الطبية الأخرى المتوفرة لرعاية المرضى:** نعم/لا/لست متأكداً

5.4 **هل لديك الإمكانية لاستخدام التكنولوجيا كبديل للمواعيد وجهاً لوجه من باب توفير شكل من أشكال الرعاية عن بعد؟**: نعم/لا

إذا كانت الأجابة نعم، لطفاً قم بالإجابة عن التالي:

- ما هي التقنية المستخدمة؟ (قم باختيار جميع الخيارات المنطبقة على إجابتك): مكالمة هاتفية/مكالمة فيديو/أخرى، لطفاً قم بذكرها
- ما هي الخدمات التي يمكن توفيرها عن بعد؟ (كالدعم النفسي أو الرعاية الروحانية أو الحزن والفجيعة أو الرعاية في الأيام الأخيرة إلخ)
- ما هي إيجابيات استخدام التقنيات الافتراضية؟
- ما هي مصاعب استخدام هذه التقنيات؟

إذا كانت الإجابة لا، لطفاً قم بالإجابة عن التالي:

- ما هي المحددات التي تحول دون استخدام هذه التقنيات؟
- كيف يمكن تسهيل استخدامك لهذه التقنيات؟

5.5 **في حالات الطوارئ أو الإغلاق العام أو الحجر الصحي، هل تعمل كيف ستتمكن دار الرعاية التي تعمل بها من توفير:**

(سواء من خلال مخزونات السلطات المحلية أو الوطنية أو من مزودي القطاع الخاص أو جهات النقل إلخ)

-الأغذية (للمرضى المقيمين في المستشفى فقط)؟ نعم/لا

-الأدوية والمعدات الطبية الأخرى؟ نعم/لا

-طواقم إضافية (في حال قام إصابة بعض أفراد الطاقم أو قيامهم بالعزل الذاتي)؟ نعم/لا

(اختياري) لطفاً قم بالتوضيح

5.6 **هل لديك أية مواد تثقيفية فيما يتعلق بكوفيد-19؟** نعم/لا

إذا كانت إجابتك نعم:

-هل يتم عرض هذه المنشورات في مكان مرئي للطاقم والمرضى والزوار؟ نعم/لا

-هل هي متوفرة كذلك في المجتمع المحيط؟ نعم/لا

لطفاً قم بتوضيح التالي:

- ما هي طبيعة المواد التثقيفية لديك؟
- كيف حصلت على هذه المواد التثقيفية؟

(اختياري) قم بذكر أية أفكار أو اقتراحات فيما يتعلق بالموارد

6. التأثير على الطاقم

6.1 هل لاحظت تغيب بعض أفراد الطاقم بشكل مفاجئ عن العمل دون بيان السبب (بشكل أكثر من المعتاد)؟

نعم/لا/لست متأكداً

6.2 برأيك، ما مدى توتر الطاقم لديك فيما يتعلق بحاجتهم لرعاية أطفالهم من غير الذاهبين إلى المدارس؟ (على مقيا

من 1 الى 10، حيث 1=غير قلق أبداً، 10=قلق بشدة)

1/2/3/4/5/6/7/8/9/10

6.3 برأيك، ما مدى توتر الطاقم لديك فيما يتعلق بحاجتهم لرعاية أقربائهم؟

(على مقيا من 1 الى 10، حيث 1=غير قلق أبداً، 10=قلق بشدة)

1/2/3/4/5/6/7/8/9/10

6.4 برأيك، ما مدى قلق الطاقم لديك فيما يتعلق بإصابتهم أنفسهم؟

(على مقيا من 1 الى 10، حيث 1=غير قلق أبداً، 10=قلق بشدة)

1/2/3/4/5/6/7/8/9/10

6.5 ما مدى قلقك بشأن المشاكل المترتبة على تواصلك مع المجتمع المحيط بك في حال كانت دار الرعاية أو الوحدة التي تعمل بها معروفة بتعاملها مع حالات كوفيد-19 محتملة؟

(على مقيا من 1 الى 10، حيث 1=غير قلق أبداً، 10=قلق بشدة)

1/2/3/4/5/6/7/8/9/10

(اختياري) قم بذكر أية أفكار أو اقتراحات فيما يتعلق بالآثار المحتملة لكوفيد-19 عليك وعلى طاقمك

7. إدراك المخاطر

في غضون الأسبوع القادم...

7.1 برأيك، ما مدى فرصة إصابة طاقم دار الرعاية أو وحدة الرعاية التلطيفية بكوفيد-19؟

(على مقيا من 0 إلى 10، حيث 0=ليس هنالك خطورة، 10= أقصى خطورة يمكنك خيلها)

1/2/3/4/5/6/7/8/9/10

7.2 برأيك، ما احتمال إغلاق دار الرعاية أو وحدة الرعاية التلطيفية التي تعمل بها بسبب وجود حالة مصابة فيها؟

(على مقيا من 0 إلى 10، حيث 0=ليس هنالك خطورة، 10= أقصى خطورة يمكنك خيلها)

1/2/3/4/5/6/7/8/9/10

7.3 هل لديك أية مخاوف أمنية فيما يتعلق بك أو بالطاقم؟ نعم/لا

إذا كانت إجابتك نعم، لطفاً قم بالتوضيح

(اختياري)

قم بذكر أية أفكار أو اقتراحات فيما يتعلق بأية آثار أخرى محتملة لكوفيد-19 على طاقمك

8. الجاهزية لتقديم الدعم

8.1 هل لديك أية بروتوكولات للعناية التلطيفية فيما يتعلق بالسيطرة على الأعراض والدعم النفسي ويمكن مشاركتها مع غير الاختصاصيين و/أو فرق الاستجابة لكوفيد-19 في مؤسسات الرعاية الصحية الأخرى؟

نعم/لا

إذا كانت الإجابة نعم، هل لديك الإمكانية لتدريب غير الاختصا □يين على كيفية□طبيق هذه البرو□وكولات؟ نعم/لا

(اختياري)

ما هي المحددات التي□حول دون مشاركة هذه الخبرات؟

(اختياري)

كيف يمكن□سهيل مشاركة هذه الخبرات؟

8.2 في حال حدوث جائحة لكوفيد-19 أو أي مرض معدي آخر، هل لديك خطط لنشر الطواقم التالية خارج المستشفيات؟

-موفري الرعاية الصحية: نعم/لا/لا أعلم/غير متوفر

-المتطوعين: نعم/لا/لا أعلم/غير متوفر

-الموارد (المواد واللوازم): نعم/لا/لا أعلم/غير متوفر

إذا أجبت بـ نعم على أي من المذكور أعلاه، لطفاً قم بتوضيح السياق الذي سيتم نشرها فيه (كالمجتمع أو وحدات العناية الأخرى إلخ)

8.3 هل لديك أية خطط لدعم وحدات الرعاية الصحية الأخرى في تصنيف الحالات في حال حدوث جائحة كوفيد-19؟

نعم/لا

(اختياري) قم بذكر أية□علیقات لديك

تعليقات إضافية

برأيك، ما هي أبرز التحديات المستقبلية لكوفيد-19 في وحدتك على مدى الشهر أو الشهرين القادمين؟

ما هي أفضل الطرق لمساعدتك على تجاوز هذه التحديات؟

هل تعتقد أن هنالك أي معلومات مهمة لم نسألك عنها في هذا الاستبيان؟

ما هي أبرز مخاوفك؟

بإمكانك مشاركة أية أفكار أو تعليقات:

اختياري:

هل ترغب في تلقي نتائج هذا الاستطلاع عبر البريد الإلكتروني؟ نعم/لا

هل ترغب في أن يتم الاتصال بك في المستقبل بشأن فرص البحث أو مناصرة الرعاية التلطيفية؟ نعم/لا

إذا كانت الإجابة بنعم على أي مما ورد أعلاه ، فيرجى تزويدنا بتفاصيل الاتصال (الاسم ، المنظمة ، البريد الإلكتروني) :

ملاحظة:

سيتم فرقة بيانا كم الشخصية من أجوبتكم على الأسئلة و سيسمح فقط لأعضاء معيين من فريق العمل في كلية كينجز في لندن الاطلاع على هذه البيانات.

يرجى الملاحظة أنه في حال موافقتكم على مشاركة معلومات التوا ل الخا ة بك فإن أجوبتك لن كون مجهولة لفريق العمل في كلية كينجز في لندن.

المعلومات النهائية

بإمكانك الو□ول إلى معلومات متعلقة بكوفيد-19 والعناية التلطيفية في الموارد التالية:

-معهد سيسيلي سوندرز للعناية التلطيفية وإعادة التأهيل في كلية الملك في لندن:

www.kcl.ac.uk/cicelysaunders/resources/links

-□حاد الرعاية التلطيفية العالمي

www.thewhpca.org/covid-19

-المؤسسة الأوروبية للرعاية التلطيفية

www.eapcnet.eu/publications/coronavirus-and-the-palliative-care-response

بإمكانك مشاهدة معلومات عن كوفيد-19 في الموارد التالية:

-منظمة الصحة العالمية (WHO)

www.who.int/emergencies/disease/novel-coronavirus-19

- مكتب منظمة الصحة العالمية الإقليمي لشرق البحر المتوسط

www.emro.who.int/health-topics/corona-virus/information-resources.html

- مكتب منظمة الصحة العالمية لأوروبا

www.euro.who.int/en/health-topics/health-topics/health-emergencies/coronavirus-covid-19

شكراً جزيلا على وقتك ولمشاركتك في هذا الاستبيان

إذا كانت لديك أية أسئلة أو مخاوف، بإمكانك التوا□ل مع □باح بوفخيد على البريد الالكتروني sabah.boufkhed@kcl.ac.uk

Additional file 3. COVID-19 situation in the responding services (n=26)

Table A. Description of cases

	n	%
Type of cases reported:		
confirmed	14	*52*
confirmed + suspected	3	*11*
confirmed + suspected + probable	2	*7*
confirmed + probable	1	*4*
suspected	6	*22*
probable	1	*4*
Cases reported among:		
patient	8	*30*
patient + relative + physician + nurse [2]	4	*15*
patient + nurse	3	*11*
patient + relative	2	*7*
patient + relative + nurse [1]	2	*7*
patient + physician + nurse	2	*7*
patient+ physician	1	*4*
physician	2	*7*
nurse	2	*7*
missing	1	*4*
Location of the cases identified:		
in the service	9	*33*
another service of the hospital where the palliative care is located	15	*56*
both in the service and another service	2	*7*

1. One respondent also specified Other: 'Administrative staff'

2. Two respondents also specified 'Other': 'manager, co-ordinator'; 'cleaning staff, secretary, kitchen staff'

Table B. Case identification and actions taken by the service

	n
Case identification	
Phone call	10
Hospital dashboard/hospital HIS/Infectious Diseases teams	8
COVID-19 screening of patients at admission and with symptoms; and of Healthcare providers	3
Symptoms identified	2
Diagnosed done by service doctor	1
Department officer	1
Call for support	1
Routine examination	1
Lab report	1
missing	2
Actions taken	
Referral	14
Isolation / containment measures	10
Reporting	9
Communication with staff	6
Treatment	2
Protection of staff	1
Communication with users	1
Infection control involvement	1
Communication with department head	1
Covid team managed case	1
Home quarantine (for infected staff and contacts)	1
Training with staff	1
Contact tracing	1
Testing of all staff	1
Asymptomatic cases were followed up as outpatient	1
Use of smartphone app to follow-up covid-related patients	1

All cancer hospital entrances were closed except for 1 inpatient and 1 outpatient entrance with triage with symptoms screening	1
All patients and caregivers to wear a mask (offered if don't have one))	1
Informed staff of SOP for covid protection and case detection	1
daily update and assessment meeting in the unit	1
Missing	3

Additional file 4. Mechanisms in place to communicate and coordinate the response (N=43)

	n	%
Receiving information		
Institutions or person who would inform the hospice/service[1,2]		
Infection control team	13	30
Ministry of Health (MoH) / provincial health directorate	7	16
Head of hospital and/or department / hospital management/ administration	6	14
Medical staff (doctors and/or nurses)	3	7
Laboratory / Laboratory review online	2	5
Medical/Professional society	1	2
Preventive medicine team	1	2
Emergency service	1	2
Don't' know or N/A or Missing	10	23
Person who would be informed in the hospice or service[1,2]		
Designated doctor/Dr in chief/Medical director/Nursing manager	8	19
Head of hospital and/or department / hospital management	7	16
Infection control team	5	12
Medical/Clinical chief	4	9
Medical staff (doctors and/or nurses)	4	9
COVID-19 team	3	7
All staff	2	5
Specialist Palliative Care Physician and Consultant / consultant In charge of patient	2	5
MoH	1	2
Professor	1	2
Don't know or Missing	*10*	23
Communication system(s) that will be used to receive information:[2]		
Mobile phone available 24/7	33	*77*

WhatsApp/Viber group	21	*49*
Telephone (in the service)	21	*49*
Email	16	*37*
Focal point person identified in the service responsible for collecting and sharing up-to-date information		
Yes[3]	31	*72*
No	7	*16*
Unsure	4	*9*
Missing	1	*2*
Sharing information		
Any communication means in place to share COVID-19 or other urgent information:		
with staff[2]	**41**	***95***
Phone call	28	*65*
WhatsApp/Viber	27	*63*
Email	20	*47*
Text message	14	*33*
with patients[2]	**39**	***91***
Text message	18	*42*
WhatsApp/Viber	10	*23*
Phone call	35	*81*
Email	4	*9*
with relatives, visitors[2]	**39**	***91***
Phone call	37	*86*
Text message	13	*30*
WhatsApp/Viber	10	*23*
Email	2	*5*

1. Data obtained from the analysis of open text questions

2. Multiple choices allowed

3. 19 respondents provided details: Medical staff in charge (physician/nurse)(n=9); Infection control unit(n=3); Head of department/service(n=2); Liaison officer(n=1); Hospital manager/executive(n=1); Doctors(n=1); COVID-19 team(n=1); Administrative assistant(n=1)

Additional file 5. Information available in the service (N=43)

	Paper-based registry[1]	Electronic record[1]	None	Other*
	n (%)	n (%)	n (%)	n (%)
Up-to-date contact list of				
all staff working in or for the service	20 (47)	31 (72)	2 (5)	1 (2)
all patients that attended or have attended the service	17 (40)	29 (67)	2 (5)	1 (2)
all relatives that visited or have visited the service	14 (33)	13 (30)	16 (37)	1 (2)
patients visited in the community	13 (30)	14 (33)	16 (37)	1 (2)
System collecting information about:				
patients' symptoms	21 (49)	33 (77)	0 (0)	2 (5)
patients' outcomes	18 (42)	31 (72)	0 (0)	2 (5)
treatment given	19 (44)	35 (81)	0 (0)	1 (2)
dates of patients' visits or stay	19 (44)	34 (79)	1 (2)	2 (5)
dates of relatives' visits	15 (35)	14 (33)	16 (37)	2 (5)

1. Multiple choices allowed

Additional file 6. Tables summarising the qualitative analysis of open-text questions

Table C. Challenges foreseen in the upcoming month (N=30)

	n
Factors external to the service	**10**
Social distancing	2
Fast community spread/community commitment to PPE	2
Second wave	2
Increased number of cases	2
Containment of the diseases	1
Psychosocial consequences of lockdown	1

Service organisation	**7**
Reorganisation of work	1
Extension of PC to COVID 19 patients / increase in patients with COVID 19 postintensive care	2
Less patient	1
admission control	1
inability of patients to attend the outpatient clinic	1
limitations in home visits	0
repeating tests	1
Staff workload and wellbeing	**6**
manage the increased stress and anxiety	3
Inadequate staffing	1
increased workload	1
staff infected or quarantined	1
Quality of care (not optimum during a pandemic, delay in treatment)	3
Resources	**3**
Financial concern and burden (upcoming financial crises-donations)	1
Not enough sterilisation equipment	1
Inadequate medicines	1
Other	**2**
Infection among staff/patient	1
Health system overload	1

Table D. Respondents' views on help needed (N=24)

	n
Infection control	**8**
Quick control of COVID-19 / vaccine	2
Barrier measure and screening	2
Preventive measures / social distancing and hygiene	3
Isolation	1
Resources for service	**6**
Training / Rapid training and orientation	2
Sufficient staff number	1
Getting tests	1
Financial help and support	2
Regulations	**3**
Obey instructions	1
Lockdown	1
Fines for violators	1
Team support	**3**
Team work/meeting	1
Psychosocial support	1
More support from service/administration	1
Individual behaviour	**2**
Awareness raising	1
Individuals being careful	1

Table E. Respondents' biggest worries (N=22)

	n
Getting infected and transmitting COVID 19	**11**
Getting ill/nosocomial COVID	7
infecting family and patients	4
Impact of COVID on healthcare	**6**
Closing service due to COVID	1
Patient outcome	1
Resources drained for COVID and negative impact on other services including PC	1
Infection control	**4**
Asymptomatic transmission	1
Spike in cases that would overwhelm capacity / second wave / Not being able to control the virus	3
Impact of COVID on society	**2**
the changes after pandemic	1
Related socio-economic problems and medical problems	1
Other	**1**
To forget	1

Table F. Limitations to share expertise (N=10)

	n
Service overload	**3**
Staff shortage	1
Time restraints	1
Work pressure	1
Training/awareness	**2**
Lack of education of HCP/ lack of knowledge of PC role	1
Lack of training	1
Lack of integration of PC into oncology	1
Attitudes of HCP	1
Communication problems	1
Most of the resources and efforts directed to COVID response	1
Limit of consultation due to the use of video conferencing	1
Single centre experience	1

Table G. Services that could be provided remotely (N=33)

	n
Non-medical palliative care	**34**
Psychological	17
Social	2
Spiritual	7
Bereavement and grief support	7
Nutrition	1
Medical care / consultations	**14**
Consultations / Medical support and care	5
Follow-up of patients and family	1
Pain and symptom management	6
Treatement / Medication refill	2
End of life management	**9**
Managing end of life	8
Communication with family at the end of life	1
Education	**3**
Caregiver education	2
Teaching	1
Other	**2**
Communication with HCW	1
COVID-19 positive consultation/referrals	1

Table H. Disadvantages and advantages of using technology for providing palliative care *(N=27)*

	n
DISADVANTAGES OF USING TECHNOLOGY	
Resources	**9**
Internet connection/accessibility	4
Lack of technology devices for some patients/society	4
Time pressure	1
Trust and cooperation	**4**
Cooperation from the patients' family / Relatives hiding information from patients	2
Difficult to build rapport/trust	2
Appropriateness issues	**3**
Difficult for elderly patients	1
Difficult for end of life care	1
Difficulty or lack of knowledge to use technology	1
Lack of body language when not face to face communication	**3**
Difficulty in documenting, medical evaluation or examining patient, and assessing symptoms	**2**
Acceptance issues	**2**
Adaptation	**1**
Acceptance from society	**1**
None	**2**
Other	**3**
Psychosocial issues	1
Difficulty in reaching individuals	1
Inaccuracy in some appointments and related issues in session programme	1
ADVANTAGES OF USING TECHNOLOGY	
Remote care delivery and management	**8**
Medical care, Pain management	2
Appointment and follow-up	2

Communication between medical care personel and patients	2
To postpone follow-up	1
Relief and psychological support for patients to face the crisis	1
Mean to control transmission (Less risky / enabled to protect ourselves / stay confined at home)	**6**
Communication - generic	**2**
Communication	1
Communication with HCP	1
Other	**7**
Support	2
Working well	2
Convenient, easy, practical	1
Direct contact	1
Saves time and effort	1
Missing	**6**

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