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Rapid Expansion of Palliative Care Capacities during the SARS-CoV-2 Pandemic - A Single Center Experience as Blueprint for Current and Future Pandemics

Ivanyi P[1,2], Steffens S[1,2,3], Ringshausen F[4], Matthias K[1], Meier K[5], Proietto B[5], Baier C[6], Zimmermann T[7], De Zwaan M[7], Kahl KG[8], Neitzke G[9], Keller-Denke U[10], Reuter CHR[1], Hoeper M[4,11], Wernstedt T[1] and Ganser A[1]*

[1]Department of Hematology, Hemostasis, Oncology and Stem Cell Transplantation, Tumor Center and Palliative Care, Hannover Medical School, Germany

[2]Interdisciplinary Co-operative Immuno-oncology Group (ICOG-N) of Comprehensive Cancer Center Lower Saxoney (CCC-N), Hannover Medical School, Germany

[3]Medical Education and Education Research, Hannover Medical School, Germany

[4]Department of Respiratory Medicine, Hannover Medical School and Germany Centre of Lung Research (BREATH/DZL), Germany

[5]Nursing Section, Hannover Medical School, Germany

[6]Institute of Medical Microbiology and Hospital Epidemiology, Hannover Medical School, Germany

[7]Department of Psychosomatic Medicine and Psychotherapy, Hannover Medical School, Germany

[8]Department of Psychiatry, Social Psychiatry and Psychotherapy, Hannover Medical School, Germany

[9]Institute for Medical Ethics, History, and Philosophy of Medicine, Hannover Medical School, Germany

[10]Hospital Church, Hannover Medical School, Hannover Medical School, Germany

[11]COVID-19-Task-Force, Hannover Medical School, Germany

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Correspondence:

Philipp Ivanyi, Department of Hematology, Hemostasis, Oncology and Stem Cell Transplantation, Tumor Center and Palliative Care, Hannover Medical School, Hannover, Germany, Tel: 49(0)511532-4077/9196; Fax: 49(0)511-532-8202; E-mail: Ivanyi.philipp@mh-hannover.de

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Abstract

Introduction: Data on expansion strategies of palliative care capacities during pandemic is scarce. Here, we report on rapid expansion of in-hospital palliative care capacities for terminally ill patients with COVID-19 in a large tertiary hospital.

Material and Methods: Organization of a new palliative ward within 96 h. Key focus of necessary palliative implementations were identified by a structured panel discussion. A multiprofessional palliative team organized and supported a new palliative care team. Both of them were in charge for expanded in-house palliative care capacities.

Results: High-level in-house palliative capacities were expanded by a newly established multiprofessional Palliative Organizing Team (POT), and Palliative Care Team (PCT). Within 96 h in-house palliative care capacities were expanded from a palliative care ward with 7 beds up to 15 beds, being prepared to further expand up to 33 beds. The POT identified 4 urgent subject areas and implemented solutions. Topics were general logistics, staff-directed palliative care plans, as well as communication directed topics (for patients and relatives). An ongoing education system and IT-system was implemented for potential additional staff expansion.

Discussion/Conclusion: The presented strategy might function as a blueprint for other medical centers during the SARS-CoV-2 pandemic. Further on, our strategy might ensure rapid expansion of palliative care capacities within a short period of time during the still ongoing pandemic, or future pandemics.

Keywords: SARS-CoV-2; COVID-19; Pandemic; Palliative medicine; Palliative care

Introduction

Multiprofessional teams are considered to be the backbone of palliative care [1]. Those teams are mandatory for respectful end-of-life care. During natural disasters or pandemics, like the current SARS-CoV-2 pandemic, adequate end-of-life care might not be sufficiently accessible due to shortage of logistical or staff resources [2]. During natural disasters, rapid changes in end-of-

life care was frequently reported, which is mandatory without doubt [3,4]. Several reports have focused on measures how to deal with SARS-CoV-2 caused symptoms, or in particular towards end-of-life needs, however data on the logistic aspects how to rapidly expand palliative care capacities during a period of medical shortage is scarce [3,4]. Here, we report our experience in a tertiary care hospital on rapid expansion of in-hospital palliative care capacities during the first wave of the current SARS-CoV-2 pandemic.

In March 2020 the Hospital-COVID-19-Task-Force of Hannover Medical School ordered an expansion of in-house capacities for palliative care. Within 96 h the expansion of palliative capacities from 7 to 15 beds had to be established on a hitherto dermatology ward. Further on, within the same time period preparedness for a total of 33 palliative care patients was requested (crisis level).

A multiprofessional Palliative Organization Team (POT) was established. The palliative organization team consisted of senior consultants experienced in palliative care (n=2) and pulmonology (n=1), a human resources officer (n=1), nurse care managers (n=3), palliative care nurses (n=3), a social worker (n=1) and a member of the clinical ethics committee (n=1). The palliative organization team instructed and guided additional staff, which was recruited as additional Palliative Care Team (PCT). The PCT consisted of 3 resident physicians (internal medicine and anesthesia), 9 general surgery/dermatology nurses, as well as two members of the hospital church service. The PCT and POT were supported by psychologists (n=2) and psychiatrists (n=2). The POT and PCT were responsible for the development and the management of the new palliative ward of 15 beds, and with 33 beds, if demanded at crisis level.

Based on a daily structured panel discussion, the palliative organization team identified multi- and interprofessional topics which were implemented in the procedures of the new palliative care ward. Four main subject areas were identified based on the assumed

Table 1:

General logistics	Palliative care plans	Staff directed	External/patients communication directed
COVID-19-Task-force **Palliative Care Organizing Team (POT)** • Structured pannel discussion, daily basis **Expanding staff resources** • Forming new palliative care team (PCT) • Palliative care nurses, advanced (n=9) • Palliative care nurses, non-advanced (n=9) • Palliative medicine physicians, advanced (n=3) • Palliaitive medicine physicians, non-advanced (n=3) • Psychologist (n=2) • Psychiatrists (n=2) • Spiritual workers (n=2) • Social workers (n=2) • Staff at COVID-19-risk, utelizing home-office for organisation support (n=2) • Hospital wide screening of staff interested in palliative care[1] **New Palliative Care Team** • Daily meeting PCT and POT **Adapting ward capacities** • 15 bed ward (split ward, infectious and non-infectious areas) • Upto 33 bed ward prepardness (infectious ward, only)[1] **Miscellaneous** • Adapting IT-stucture (computer, mobile devices) • Infection control requiremnts, e.g.: • Installation of room doors with windows (enabeling visual contact without complete personal protective equipment (PPE) instalation) • Storage of symptoms adapted medication and syringe pumps • Storage/supply of PPE • Organizing ward entry restricion • Dignify subject procedures and rooming • Subject management with pathology during pandemic conditions	**Identifying leading symptoms** • PCT/POT: data research **Generating SOP, easy documentation formulas** • Addappted according to • German Socity of Respira–tory Medicine • German Society of Intensive and Critical Care Medicine • German Society of Palliative Care • Infection control Recommendations of the German Robert Koch-Insitute **Documentation** • Clarifying documentation needs following the requiren-ments of the German Infection Protection Act	**Education** (lessons, videos of lessons for self-education) • Hygenic lesson on SARS-CoV-2 • PPE donning and doffing • How to treat respiratory distress • Psychological patients support on distance • Palliative sedation • Ethic consideration of triaige • End-of-life symptoms, decision making • Ethics at the end-of-life **Staff-Support** • Establishing of video-based supervision • Establishing of video-collection of trauma-prevention • Establishing of individual psychological consultation hours on demand and routine • Establishing of ethical consultation hours • Establishing of a multiprofessional Psychiatric/ Psychotherapeutic pandemic support package (R2b) **Team-Communication** • Establishing of video-based communication team-meetings • Establishing rituals of mourning	**Patients communication/support** • Digital devices, for patients communication with relatives • Additional phones for patients communication • Psychological/spirutal crisis intervention **External communication (hospice, relatives, wards)** • Forming of a communication team (advanced palliative nurses, physicians and social worker) • Defining communication pathways through communication team with: • Emergency department • Intensive care units • Relatives • Hospice **Support of Relatives** • Additional psychologist (phone consultation) • Additional spiritual support (phone consultation) **Establishment of interpreter-list** **Visitor regulation** • Definition and communication of visitor regulation **General regional out-palliative support** • Coordinating Departement of practitioners communicatis with practitioners[1] • Generation of COVID information flyer in different languages

(1) In preparation for Crisis level

medical needs (respiratory distress, cough, anxiety, social isolation, agitation, delirium, infection protection): General logistics, palliative care plans, staff development and communication directed topics (s. Table 1).

Topics identified by the palliative organization team were delegated to the palliative care team for establishing and implementation of topic-related measures into the organization of the expanded palliative care ward. All information's, educational material and literature were collected on a shared hardware drive, accessible to all team members. Moreover, lectures were organized for fast tract education in palliative care medicine, focusing on symptom burdens of SARS-CoV-2 patients. Lectures were video recorded in case of further educative need, potentially going along with additional staff allocation in demand of the crisis level. Schedules were arranged aiming to include at least one experienced palliative care nurse in each shift. Within one week, the first SARS-CoV-2 negative palliative care patient was admitted to the new palliative care ward, and logistics and staff were prepared for expansion to crisis level, once required.

During the implementation period and based on a daily structured panel discussion of the PCT/POT, major concerns of the staff were identified: Dealing with terminally ill patients under adequate infection control measures demanded by SARS-CoV-2, restricted communication of dying patients with their relatives during strict SARS-CoV-2 isolation precautions, and personal psychological and moral stuff resources in the face of the crisis level. However, due to the rather low local incidence of SARS-CoV-2 in Northern Germany during the first wave in spring 2020 with limited numbers of severely ill patients the Hospital-COVID-19-Task-Force ordered a rollback of the new expanded palliative care capacities.

Our hospital crisis plans mainly address the management of a large numbers of patients with trauma injuries following the experiences made during a catastrophic railway accident some years ago. During the first wave of SARS-CoV-2 pandemic, the question arose how to deal with a large number of patients with hypoxemia and respiratory distress, which might exceed intensive care capacities. Therefore, a rapid expansion of palliative capacities was required at our tertiary care hospital, which has to serve around 1.18 million citizens. Several aspects of palliative care needs during the SARS-CoV-2 pandemic were identified. However, hardly any procedural experiences were reported, e.g. how to implement and integrate inter- and multidisciplinary aspects of palliative care in a situation where palliative care need raise rapidly, including nursing staff not used to care for those patients.

Here, we chose a strategy of pooling staff with experience in palliative care with non-experienced staff. A POT delegated several procedural and educational topics towards the PCT, meanwhile also creating a new self-confident team, willing to deal successfully with the challenges of scarcity in the hospital. Shared hard ware drives and lecture videos were used to educate new staff members. Main challenges were identified in teaching the staff, as well as in coping with anxiety when facing the challenges of scenarios, which had occurred in Northern Italy and New York City [5]. In this situation, the support by psychologists and psychiatrists, as well as colleagues from medical ethics and the hospital-based pastoral care service, and infection control specialists proved as key players to solve those issues. In addition, the Department of Psychiatry, Social Psychiatry and Psychotherapy established a program to support medical staff at our hospital. Nonetheless, the newly established palliative care ward, as well as the palliative organizing team and the palliative care team were not stress-tested. The expanded palliative care service fortunately enough was not required to prove its real-life qualities because the feared SARS-CoV-2 crisis scenario was finally not seen in our region.

However, our approach of rapid team formation focusing on main topics, based on the assumption of symptoms and dangers of severe courses of SARS-CoV-2 could serve as a blue print for other colleagues during future overwhelming waves of the current pandemic, or in general for other future pandemic when there are new and yet undefined challenges for palliative care medicine.

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