Project Plan

Retrospective analysis of the prevalence of palliative care patients at Internal Medicine Departments at the University Hospital of Krems between October 2019 – December 2019 compared to March 2020 to May 2020

The following scientific paper should be submitted for publication as a Master thesis at the Sigmund Freud Private University Vienna.

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Content

Abstract

Background:

The most of our palliative patients would prefer to spend their last stage of life at home with their families, supported by palliative care services. Nevertheless, patients get admitted to the hospital when their discomforts such as pain and respiratory distress become acute. Very often, patients with palliative care needs get admitted to internal medicine wards without referral to Palliative Care Services. Hence, evaluation on the need of Palliative Care Services on internal medicine departments is of interest.

Methods:

All patients admitted to internal wards at the University Hospital of Krems presenting between 1.10.2019 and 31.12.2019 as well as those admitted between 1.3.2020 and 31.5.2020 will be assessed with a validated 2-tier screening tool for palliative care. In addition, all identified patient records will be screened to find out whether they received palliative care or not. We plan to evaluate the number of patients with palliative care needs and the number of patients who received specialized palliative care. Additionally, we want to evaluate whether there is a difference in the number of patients and number of palliative care patients before the Covid era and in the Covid era.

List of abbreviations

PCS: Palliative Care Services
ED: Emergency Department
SFU: Sigmund Freud University

Introduction

One of the main tasks of internal medicine departments is the stabilization of patients' acute and chronic conditions, with the emphasis to improve patients acute and chronic conditions as well as initiation of necessary procedures and treatment.

Palliative Care (PC) is one of the fastest-growing medical specialties. Current WHO recommendations demand the integration of PC early in the course of life-threatening illness. Nevertheless, patients often suffer from severe symptoms and a psychosocial burden that require specialized palliative care (SPC). The World Health Organization (WHO) and American Society of Clinical Oncology (ASCO) recommendation that PC is advocated early in[1,2] the course of life-threatening illness.

George et al. developed a screening tool to identify patients in the emergency department (ED) who have a significant need for palliative care[3]. By a modified Delphi technique, they assessed and validated a 2-tier screening tool for identifying patients with palliative needs who come to the ED (see Figure 1, for better readability see also attachment). The screening tool was validated by palliative care experts.

A recent study by Köstenberger et al. used a validated German version of this instrument in a temporal sample of patients visiting the ED to determine the prevalence of such patients having palliative care needs[4]. In addition, it was assessed whether these patients have had palliative care services in the past and followed them up after 3 months to investigate subsequent palliative care experiences. In this study, 1277 patients visited the ED during the investigation period. Of these patients 1096 were screened and 145 of these patients (13.2%) showed palliative symptoms and needed a goal-oriented therapy. Only 8 (5.5%) of the patients with palliative medical symptoms received palliative care consultation. In this study, more than 1 in 10 patients attending an ED suffered from palliative symptoms. Therefore, the authors concluded that it is to be expected that healthcare providers in an ED in Austria will frequently encounter patients with palliative symptoms in emergency admissions. They suggested that it is necessary to develop suitable structures to provide these patients with the best possible care.

In our retrospective descriptive analysis, we plan to use the same screening tool as Köstenberger et al. to screen internal medicine departments regarding the prevalence of palliative care patients. In addition, we want to evaluate whether palliative care was offered to these patients.

Research question/ hypothesis

1) Retrospective evaluation of the prevalence of palliative care patients at internal departments at the University Hospital of Krems between October 2019 – December 2019
    - Does the patient have a life limiting illness: yes/no (nominal variable)?
    - Does the patient have two or more palliative care needs: yes/no (nominal variable)?

- Have Palliative Care Services been offered to the patient: yes/no (nominal variable)?

2) Retrospective evaluation of the prevalence of palliative care patients at internal departments at the University Hospital of Krems between March 2020 – May 2020 (Covid-19-crisis)
    - Does the patient have a life limiting illness: yes/no (nominal variable)?
    - Does the patient have two or more palliative care needs: yes/no (nominal variable)?
    - Have Palliative Care Services been offered to the patient: yes/no (nominal variable)?
3) Hypotheses
    - Hypothesis: there is a difference in the number of patients with palliative care needs before and after the Corona-crisis
    - 0-Hypothesis: there is no difference in the number of patients with palliative care needs before and after the Corona-crisis

Patients

The evaluation will include patients submitted at an Internal Medicine Department at the University Hospital in Krems.

Inclusion criteria:

- All patients who were admitted at an Internal Medicine Department at the University Hospital in Krems between October 2019 – December 2019 and between March 2020 – May 2020

Exclusion criteria:

- Patients < 18 years

Methods

Data collection will include the use of records of patients from internal medicine departments at the University Hospital in Krems, after verification of inclusion and exclusion criteria at time XXXX (start date = positive vote of ethical commission).

Statistics

The anticipated number of patients from the University Hospital in Krems will be approximately 3000. Overall aim is to capture all patients from October 2019 until December 2019 and March 2020 to May 2020. For data characterisation, a descriptive statistical analysis will be conducted. Sample size will result from the number of patient cases analysed.

Differences in the number of patients, the number of patients with palliative care needs and the presence of palliative care services in the different time periods will be assessed by using a chi-square test, Fisher's exact test, or exact Mann-Whitney U test.

Parameters for investigation:

1. Demographic data

    a. Age (metric variable, mean, standard deviation, median, quartile)
    b. sex (nominal variable)
    c. Status (married, single, widowed) (nominal variable)

2. Disease parameters
    a. Type of disease (nominal variables)
        i. Neurologic disease, dementia
        ii. Advanced cancer
        iii. End stage renal disease
        iv. End stage COPD
        v. End stage cardiac disease
        vi. End stage liver disease
        vii. Septic shock with signs of organ failure
        viii. Assessment positive for worse outcome

3. Parameters indicating increased need for palliative care (nominal parameters, yes/no)
    a. Frequent visits in hospital or general practician
    b. Uncontrolled symptoms
    c. Functional decline
    d. Uncertainity about goals of care
    e. Surprise question

Data protection

At the University Hospital in Krems, patient records will be conducted via the access-limited EDV-system. The access to patient records is personalized and monitored. Study-relevant data will be pseudonymously compiled and evaluated. Only authorized people (Gudrun Kreye, Nora Meran) have access to the original data. Patients taking part in the study will get a sequential number (001-02---). The evaluation will be done only via this pseudonymization number.

Risk benefit evaluation

The included patients have no direct benefit of the data collection. Since it is a retrospective evaluation of data, there is no risk being expected. The risk of sensitive data being released is minimized via pseudonymization of patient data and access limitation. The outcome will lead to a better understanding of the overall clinical picture.

Strategy of publication

At the University Hospital in Krems, Priv. Doz. Dr. Gudrun Kreye is responsible for the correctness as well as pseudonymous evaluation of patient data. According to the international guidelines of publication the PI and SI will analyse and interpret the evaluated data for publication together with the student. All decisions of publication will be made in consent.

Timeline/Milestones for the handling of the topic

April 2020: Exposé
April 2020: Ethic commission
Positive vote of local ethic committee: start evaluation of data
Late 2020: Evaluation of results
2021: Proofreading and Revision
2021: Completion of Master Thesis

Involved people

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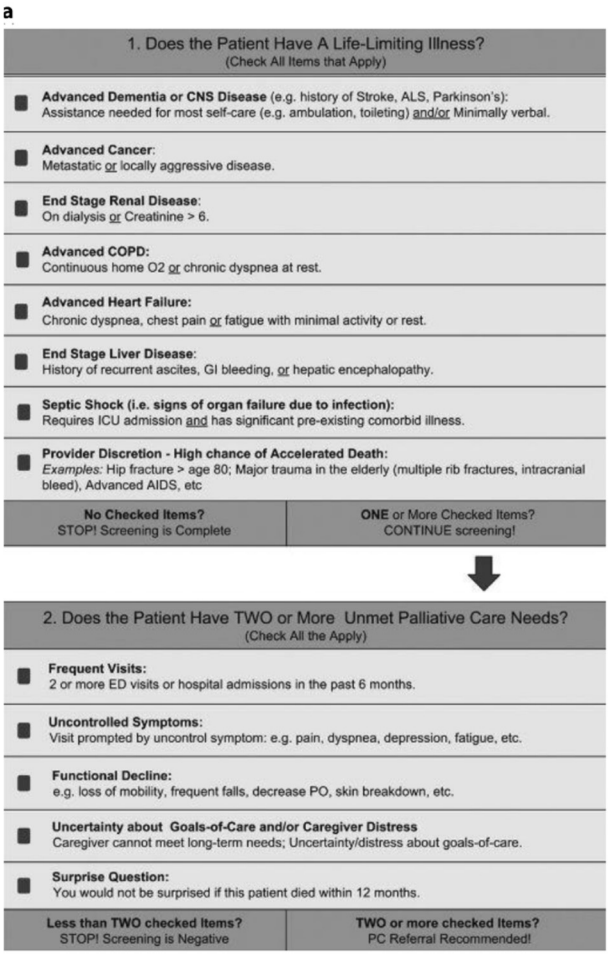
Figure 1. Palliative care screening tool (Reproduced and translated by permission of John Wiley and Sons) (George N. et al)

a. Original version
b. Translated version (German)
c. Enlarged version (German)

a. Original version



1. Does the Patient Have A Life-Limiting Illness?
(Check All Items that Apply)

- **Advanced Dementia or CNS Disease** (e.g. history of Stroke, ALS, Parkinson's): Assistance needed for most self-care (e.g. ambulation, toileting) and/or Minimally verbal.
- **Advanced Cancer**: Metastatic or locally aggressive disease.
- **End Stage Renal Disease**: On dialysis or Creatinine > 6.
- **Advanced COPD:** Continuous home O2 or chronic dyspnea at rest.
- **Advanced Heart Failure:** Chronic dyspnea, chest pain or fatigue with minimal activity or rest.
- **End Stage Liver Disease**: History of recurrent ascites, GI bleeding, or hepatic encephalopathy.
- **Septic Shock (i.e. signs of organ failure due to infection):** Requires ICU admission and has significant pre-existing comorbid illness.
- **Provider Discretion - High chance of Accelerated Death:** *Examples:* Hip fracture > age 80; Major trauma in the elderly (multiple rib fractures, intracranial bleed), Advanced AIDS, etc

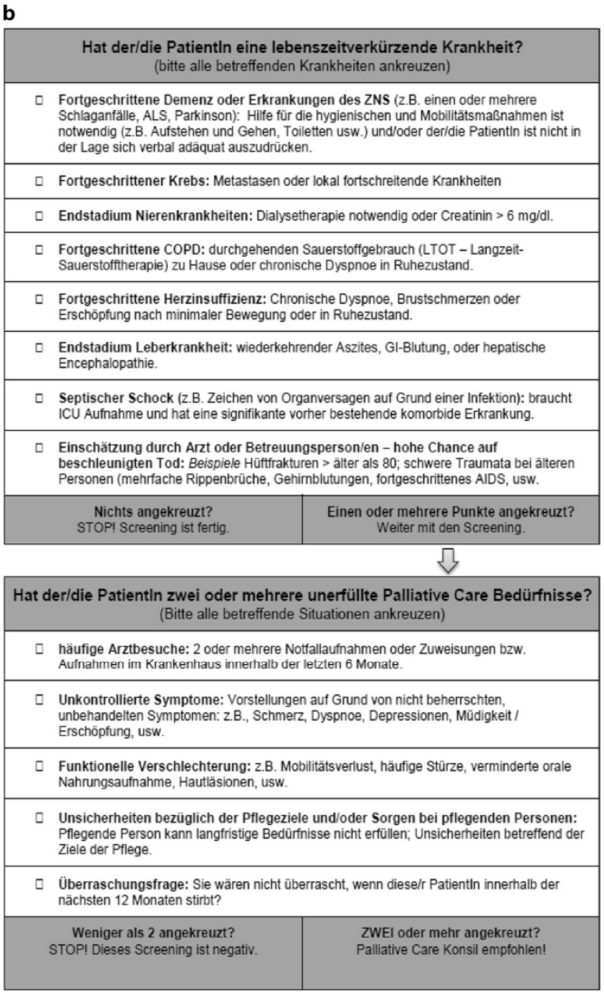
No Checked Items? STOP! Screening is Complete	**ONE** or More Checked Items? CONTINUE screening!

2. Does the Patient Have TWO or More Unmet Palliative Care Needs?
(Check All the Apply)

- **Frequent Visits:** 2 or more ED visits or hospital admissions in the past 6 months.
- **Uncontrolled Symptoms:** Visit prompted by uncontrol symptom: e.g. pain, dyspnea, depression, fatigue, etc.
- **Functional Decline:** e.g. loss of mobility, frequent falls, decrease PO, skin breakdown, etc.
- **Uncertainty about Goals-of-Care and/or Caregiver Distress** Caregiver cannot meet long-term needs; Uncertainty/distress about goals-of-care.
- **Surprise Question:** You would not be surprised if this patient died within 12 months.

Less than TWO checked Items? STOP! Screening is Negative	**TWO or more checked Items?** PC Referral Recommended!

b. Translated version (German)



Hat der/die PatientIn eine lebenszeitverkürzende Krankheit?
(bitte alle betreffenden Krankheiten ankreuzen)

- ☐ **Fortgeschrittene Demenz oder Erkrankungen des ZNS** (z.B. einen oder mehrere Schlaganfälle, ALS, Parkinson): Hilfe für die hygienischen und Mobilitätsmaßnahmen ist notwendig (z.B. Aufstehen und Gehen, Toiletten usw.) und/oder der/die PatientIn ist nicht in der Lage sich verbal adäquat auszudrücken.
- ☐ **Fortgeschrittener Krebs:** Metastasen oder lokal fortschreitende Krankheiten
- ☐ **Endstadium Nierenkrankheiten:** Dialysetherapie notwendig oder Creatinin > 6 mg/dl.
- ☐ **Fortgeschrittene COPD:** durchgehenden Sauerstoffgebrauch (LTOT – Langzeit-Sauerstofftherapie) zu Hause oder chronische Dyspnoe in Ruhezustand.
- ☐ **Fortgeschrittene Herzinsuffizienz:** Chronische Dyspnoe, Brustschmerzen oder Erschöpfung nach minimaler Bewegung oder in Ruhezustand.
- ☐ **Endstadium Leberkrankheit:** wiederkehrender Aszites, GI-Blutung, oder hepatische Encephalopathie.
- ☐ **Septischer Schock** (z.B. Zeichen von Organversagen auf Grund einer Infektion)**:** braucht ICU Aufnahme und hat eine signifikante vorher bestehende komorbide Erkrankung.
- ☐ **Einschätzung durch Arzt oder Betreuungsperson/en – hohe Chance auf beschleunigten Tod:** *Beispiele* Hüftfrakturen > älter als 80; schwere Traumata bei älteren Personen (mehrfache Rippenbrüche, Gehirnblutungen, fortgeschrittenes AIDS, usw.

Nichts angekreuzt? STOP! Screening ist fertig.	**Einen oder mehrere Punkte angekreuzt?** Weiter mit den Screening.

Hat der/die PatientIn zwei oder mehrere unerfüllte Palliative Care Bedürfnisse?
(Bitte alle betreffende Situationen ankreuzen)

- ☐ **häufige Arztbesuche:** 2 oder mehrere Notfallaufnahmen oder Zuweisungen bzw. Aufnahmen im Krankenhaus innerhalb der letzten 6 Monate.
- ☐ **Unkontrollierte Symptome:** Vorstellungen auf Grund von nicht beherrschten, unbehandelten Symptomen: z.B., Schmerz, Dyspnoe, Depressionen, Müdigkeit / Erschöpfung, usw.
- ☐ **Funktionelle Verschlechterung:** z.B. Mobilitätsverlust, häufige Stürze, verminderte orale Nahrungsaufnahme, Hautläsionen, usw.
- ☐ **Unsicherheiten bezüglich der Pflegeziele und/oder Sorgen bei pflegenden Personen:** Pflegende Person kann langfristige Bedürfnisse nicht erfüllen; Unsicherheiten betreffend der Ziele der Pflege.
- ☐ **Überraschungsfrage:** Sie wären nicht überrascht, wenn diese/r PatientIn innerhalb der nächsten 12 Monaten stirbt?

Weniger als 2 angekreuzt? STOP! Dieses Screening ist negativ.	**ZWEI oder mehr angekreuzt?** Palliative Care Konsil empfohlen!

c. Enlarged version (German)

Hat der/die PatientIn eine lebenszeitverkürzende Krankheit? (bitte alle betreffenden Krankheiten ankreuzen)	
☐ **Fortgeschrittene Demenz oder Erkrankungen des ZNS** (z.B. einen oder mehrere Schlaganfälle, ALS, Parkinson): Hilfe für die hygienischen und Mobilitätsmaßnahmen ist notwendig (z.B. Aufstehen und Gehen, Toiletten usw.) und/oder der/die PatientIn ist nicht in der Lage sich verbal adäquat auszudrücken.	
☐ **Fortgeschrittener Krebs:** Metastasen oder lokal fortschreitende Krankheiten	
☐ **Endstadium Nierenkrankheiten:** Dialysetherapie notwendig oder Creatinin > 6 mg/dl.	
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☐ **Septischer Schock (**z.B. Zeichen von Organversagen auf Grund einer Infektion**):** braucht ICU Aufnahme und hat eine signifikante vorher bestehende komorbide Erkrankung.	
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Nichts angekreuzt? STOP! Screening ist fertig.	**Einen oder mehrere Punkte angekreuzt?** Weiter mit den Screening.

⇩

Hat der/die PatientIn zwei oder mehrere unerfüllte Palliative Care Bedürfnisse? (Bitte alle betreffende Situationen ankreuzen)	
☐ **häufige Arztbesuche:** 2 oder mehrere Notfallaufnahmen oder Zuweisungen bzw. Aufnahmen im Krankenhaus innerhalb der letzten 6 Monate.	
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☐ **Überraschungsfrage:** Sie wären nicht überrascht, wenn diese/r PatientIn innerhalb der nächsten 12 Monaten stirbt?	
Weniger als 2 angekreuzt? STOP! Dieses Screening ist negativ.	**ZWEI oder mehr angekreuzt?** Palliative Care Konsil empfohlen!

References

1. Bruera E: The development of a palliative care culture. Journal of palliative care 20:316-319, 2004
2. Organization WH: WHO definition of palliative care. http://www. who. int/cancer/palliative/definition/en/index. html, 2002
3. George N, Barrett N, McPeake L, et al: Content Validation of a Novel Screening Tool to Identify Emergency Department Patients With Significant Palliative Care Needs. Acad Emerg Med 22:823-37, 2015
4. Kostenberger M, Neuwersch S, Weixler D, et al: Prevalence of palliative care patients in emergency departments. Wien Klin Wochenschr 131:404-409, 2019