# **REVIEW ARTICLE**

# Medical referral criteria for palliative care in adults: a scoping review

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## **KEY WORDS**

# health care delivery, hospice care, palliative care, referral criteria, standards

#### **ABSTRACT**

Palliative care (PC) is focused on the relief of serious suffering due to severe illness. The Polish health care reimbursement system limits the access to PC to a so-called "basket" of recipients with life-limiting incurable diseases (mainly cancer), not responding to disease-modifying therapy. This scoping literature review was aimed to define the criteria of medical referral for PC in the context of the interpretation of the terms life-limiting illness and disease-modifying therapy, which may aid in increasing the number of appropriate referrals and patients receiving optimal treatment. The PubMed and Google Scholar databases (2011-2021) were searched using the following terms: referral, eligibility, admission as well as life-limiting, end-stage and palliative care. Of 790 rertrieved articles, 103 studies met the inclusion criteria. Two groups of referral criteria were found: disease- or prognosis-based and needs-based. The first group was focused on a survival prognosis of 6 to 12 months, while the second encompassed the presence of severe, complex, or persistent symptoms or health problems not responding to optimal treatment. Numerous examples of disease-modifying treatments for specific advanced diseases were found. The discriminants characterizing life-limiting diseases in individual cases should preferably be used in clusters to accurately screen for PC eligibility. Equally important as limited survival prognosis is the presence of severe, complex, and persistent symptoms or problems occurring despite optimal treatment and general care. Based on the reviewed literature, the national reimbursement program should be urgently extended to cover more patients who are eligible and could benefit from specialist PC. Additionally, the importance of general PC should be universally acknowledged.

-based definition, palliative care (PC) "is the active holistic care of individuals across all ages with serious health-related suffering due to severe illness and especially of those near the end of life." Severe illness in this context is a condition that carries a high risk of mortality, negatively impacts the quality of life and daily functioning, and/or is burdensome with regard to symptoms, treatments, or caregiver stress. In contrast, the Polish health care reimbursement system supports the care of those with certain few, strictly defined diseases (mainly cancer), and with a limited life span.2 It should be noted that other health conditions besides cancer, such as organ failure, frailty, or progressive neurological dysfunctions, could be the source of serious health-related suffering, and that patients with these diseases may also benefit from palliative support.3

**Introduction** According to the latest consensus-

According to the Regulation of the Polish Minister of Health, the terms PC and hospice care are regarded as synonymous. The guaranteed health care benefits within PC are defined as comprehensive, holistic care and symptom management for patients with incurable, progressive, life-limiting illnesses not responding to disease-modifying therapy. The conditions for PC implementation are, in turn, encompassed by certain medical criteria determined by the admitting physician. The term *medical criteria*, also used in the Ministry Regulation on the standards of health care waiting lists, 4 comprises medical conditions, patient's prognosis, existing comorbidities, and the risk of disability progression. However, a strict clinical definition of such criteria is lacking and thus the interpretation of this term may be ambiguous for clinicians who have to triage patients prior to PC admission. The lack of standardized eligibility criteria may prevent timely access to PC.5

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TABLE 1 General (not related to a specific disease) discriminants of life-limiting illness

- Surprise Question: Would I be surprised if this patient died within 1 year?, or within 6 months?
- Second Surprise Question: Would I be surprised if this patient was still alive after 12 months?
- Recent (in the previous 3-6 months) deterioration in functional status
- Frequent (>1) hospital admissions or visits to an emergency department in the past 6 months due to the same condition
- Involuntary weight loss (>10% in 6 months) and/or albumin level <2.5 g/dl
- Sudden and severe brain injuries, eg, intracerebral hemorrhage requiring mechanical ventilation or global cerebral ischemia after cardiopulmonary resuscitation
- Multiple organ failure not eligible for ICU admission
- · Cardiac arrest occurred in the surgical ICU
- ICU admission after ≥10 days of hospitalization

A full list of references for the Table is provided in Supplementary material.

Abbreviations: ICU, intensive care unit

The aim of this scoping literature review was to define medical referral criteria for PC in the context of the understanding of the terms *life-limiting* illness and disease-modifying therapy and, consequently, attempt to reduce some obstacles related to the admission process. The institutional board gave approval for this review without the need for a full committee review. A hand-search of the literature was performed in the PubMed and Google Scholar (for grey publications) databases, from January 1, 2011 to December 31, 2021. The following terms were searched in the title or abstract: referral, eligibility, or admission and life-limiting, end-stage, or palliative care. The phrase disease--modifying therapy was separately screened for in the context of major causes of deaths in adults.6 Data were extracted from eligible full-length texts, and scoping synthesis was undertaken. According to the PRISMA guidelines, a total of 790 abstracts were identified and screened for eligibility. Initially, 143 full-text articles were considered for analysis. A total of 36 papers were excluded due to lack of relevance. Finally, 103 publications were analyzed, including 47 reviews, 44 original papers, 11 guidelines, and 1 case study.

Prognosis-based criteria In the analyzed literature, medical eligibility criteria for PC were divided into 2 major groups: disease- or prognosisbased and needs-based.8 Advanced life-limiting or end-stage illness was usually defined based on patients' forecasted survival prognosis of 6 to 12 months. The broadly-cited, insightful surprise question (SQ) proposed by Pattison and Romer,9 that is, "Would I be surprised if this patient died in the next 12 months?", initiated targeting of patients who would benefit from advanced care planning and supportive care. Complementing the SQ with an additional question, namely, "Would I be surprised if this patient was still alive within 1 year?" also seemed promising as a more accurate approach in this selection process. 10 However, no single, universal "trigger" for PC referral could be

found, and clinical forecasting was usually accompanied by additional discriminants, such as visible health deterioration, hospital readmissions, weight loss, or hypoalbuminemia<sup>11</sup> (TABLE 1).

These general factors pointing to life-limiting illness (TABLE 1) were extended to numerous disease-specific factors, which are presented in TABLE 2. In the analyzed literature, access to PC was not limited to strictly defined primary causes of death, but was rather classified according to all major causes of death due to chronic diseases. 8,12-21 Cancer, as a leading cause of referral for PC, is definitely not a homogenous group of disorders. Patients with a longer survival prognosis (eg, those with prostate or breast neoplasms) require the existence of metastases to critical organs such as the central nervous system, lungs, or liver, to fulfill the criteria for admission. 12 It should be noted that in patients with cancer receiving continuous disease--focused treatment, even with palliative purposes, the prognosis may become substantially longer but associated with a considerable risk of drug-related side effects. Thus, careful oncological supervision is usually needed.22 In advanced heart failure, the eligibility criteria for PC are based on the presence of typical symptoms at rest but only in the case of optimal cardiovascular therapy.<sup>23-26</sup> Timely referral in advanced respiratory failure typically means having dyspnea at rest with chronic oxygen therapy.<sup>27-29</sup> In advanced dementia and other neurodegenerative disorders referred for PC, the course of illness is usually complicated by nutritional impairment, recurrent infections, and coexistence of "nonhealable" pressure ulcers. 30-37 In diabetes, only a small percentage of deaths is uniquely attributable to this particular disorder. More commonly, the long disease duration leads to secondary multiorgan failure with consistent hyper- or hypoglycemia. 16 Organ failure within the last weeks or days of life may also lead to unavoidable, "nonhealable" pressure ulcers or edema indicative of advanced disease. 38,39 Advanced renal failure eligible for PC is typically associated with refusal, withholding, or withdrawal of renal replacement therapy. 40 Timely referral of patients with hepatic failure for PC pertains to cases with recent or recurrent acute hepatic decompensation and those who are not liver transplant candidates.41 HIV infection, despite being associated with a much longer prognosis when properly treated, also encompasses AIDS, cases not responding to antiretroviral therapy, and those with coexisting malignancies or dementia.42

**Needs-based criteria** According to the last definition of palliative care, it should be "applicable throughout the whole course of an illness, according to the patient's needs" and "in conjunction with disease-modifying therapies whenever needed." Discriminants of the needs-based eligibility criteria are presented in TABLE 3. The investigators

#### Cancer (C00-D48)

- · Metastatic cancer (solid tumor)
- Incurable cancer associated with a median predicted survival of ≤1 year: metastatic lung, noncolorectal gastrointestinal, or head and neck cancer, anaplastic thyroid, or unknown primary cancer; metastatic hepatocellular or renal cell carcinoma; locally advanced pancreatic or anaplastic thyroid cancer; and acute myeloid leukemia
- Cancer complications, eg, cerebral, lung, or bone metastases; ulcerating skin metastases; spinal metastases; stridor; superior vena cava syndrome
- Progressive cancer during (or despite) active treatment (or second-line systemic therapy)
- Poor European Cooperative Oncology Group performance status (grade <2)</li>
- · Serious comorbid condition
- Biochemical parameters associated with poor prognosis: lactate dehydrogenase >248 U/l, albumin-corrected calcium >2.55 mmol/l, C-reactive protein >50 mg/l, albumin <30 g/l, platelet count <90 × 10<sup>9</sup>/l, total protein ≤60 g/l, hemoglobin <10 g/dl
- Opioid treatment, need for parenteral nutrition or blood transfusions

## Heart failure (I50) including cardiomyopathy (I42-43) and pulmonary arterial hypertension (I27)

- New York Heart Association functional class III or IV
- Advanced (stage D) heart failure (presence of progressive and/or persistent severe signs and symptoms of heart failure despite optimal, guideline-directed medical, surgical, and device therapy)
- Left ventricular ejection fraction <25%, or <30%, or <35%, or ≤40%
- Initiation of or dependence on intravenous inotrope therapy
- Evaluation for LVAD placement, ablation for refractory ventricular arrhythmias, ICD or cardiac resynchronization therapy
- Cardiac cachexia (weight loss of ≥5% of baseline value)
- 6-minute walk test distance <300 m
- Increasing diuretic requirement and diuretic refractoriness associated with worsening renal function (estimated glomerular filtration rate < 45 ml/min/1.73 m², serum creatinine ≥160 µmol/l, serum potassium >5.2 or <3.5 mmol/l)
- Progressive decline in serum sodium levels (<133 mmol/l)</li>
- N-terminal pro-B-type natriuretic peptide > 1000 pg/ml
- Severe liver dysfunction or delirium complicating heart failure
- Progressive anemia (hemoglobin ≤120 g/l)
- · Recurrent, refractory ventricular tachyarrhythmias, frequent ICD shocks, LVAD complications
- Hypotension (systolic blood pressure <90 mm Hg) when treatment with angiotensin-converting enzyme inhibitors or β-blockers is not possible</li>

## Respiratory failure (J96), including chronic obstructive pulmonary disease (J44.9), cystic fibrosis (E84), and interstitial lung disease (J84)

- Dependence on oxygen therapy
- . Dyspnea at rest (requiring opioid therapy)
- · Lack of independence in most activities of daily living
- 6-minute walk test distance < 400 m
- Medical Research Council dyspnea scale stage ≥4 (dyspnea when dressing/undressing)
- Decreasing response to treatments and reversibility, absence of further disease-modifying treatment
- Previous hospital admission for noninvasive ventilation
- · Being qualified as a lung transplant candidate
- FEV1 < 30%, or < 40%, or <50% of the predicted value when stable
- Serial decrease of FEV1 > 40 ml per year
- Hypercapnia (PCO₂ ≥50 mm Hg or >46 mm Hg)
- Hypoxemia at rest (PO $_2 \le$ 55 mm Hg) or oxygen saturation  $\le$ 88%
- Tachycardia at rest (heart rate, 100 bpm)
- · Pulmonary hypertension, right heart failure
- Massive hemoptysis (>240 ml)

## Dementia (F01-02, G30)

- Functional Assessment Staging Test scale stage 5 (needs assistance with attire), or 6D (urinary incontinence), or 7 (≤6 intelligible words a day), or 7C (cannot walk without assistance)
- Clinical Dementia Rating scale stage ≥3 (severe memory and orientation loss, requires much help with personal care)
- · Concomitant pressure ulcers
- PPS score of <40
- Pneumonia in the previous year
- · Recent hospitalization for an acute illness

Other progressive neurodegenerative disorders including Parkinson disease (G20), multiple sclerosis (G35), amyotrophic lateral sclerosis (G12), Huntington disease (G10), motor neuron disease (G12), and muscular dystrophy (G12)

- Critical nutritional impairment (in the absence of a feeding tube) evidenced by oral intake of nutrients and fluids insufficient to sustain life and comfort, or continued weight loss
- Need for major assistance with all basic activities of daily living (personal hygiene, dressing, toileting, transferring, or ambulating)
- Life-threatening complications in the previous year (recurrent aspiration pneumonia, pyelonephritis, sepsis, pressure ulcers stage ≥3, recurrent fever)
- · Dyspnea at rest
- Oxygen need at rest and refusal of artificial ventilation
- . Urinary and fecal incontinence
- Cognitive impairment
- Vital capacity < 30%</li>
- FVC <30% or <50% of predicted value, or >25% FVC decrease in the supine position (diaphragmatic weakness)
- Maximal inspiratory pressure <60 cm H<sub>o</sub>0
- In multiple sclerosis: expanded Disability Status Scale stage ≥8 (restricted to bed or chair)
- In Parkinson disease: visual hallucinations not associated with intercurrent illness or medication change
- In Parkinson disease: Hoehn and Yahr scale stage ≥III (bilateral disease, mild-to-moderate disability and impaired postural reflexes)
- In Huntington disease: no consistent meaningful verbal communication

## Diabetes mellitus (E08-13)

- Long duration of diabetes with consistently high levels of HbA<sub>1</sub>, and hyperglycemia, or low HbA<sub>1</sub>, and hypoglycemia
- Multiple comorbidities
- · Cognitive changes

#### Pressure ulcers (L89)

- . "Nonhealable" (healing is exceedingly rare)
- Ulcers as a result of skin as an organ failure due to multiorgan failure
- Skin changes at life's end (SCALE): unavoidable pressure injury (Kennedy terminal ulcer or decubitus ominosis) in spite of proper evaluation of the individual's clinical condition, risk factors, and implementation of adequate interventions
- In advanced illness: National Pressure Ulcer Advisory Panel/European Pressure Ulcer Advisory Panel/National Pressure Injury Advisory Panel stage ≥III
- In age > 70 years: PPS ≤ 30 and insufficient alimentation

## Renal failure (N18)

- Chronic kidney disease stage ≥4: glomerular filtration rate <30 ml/min/1.73 m² or <15 ml/min/1.73 m², or on dialysis
- Multiple comorbidities in the elderly
- · Refusal of, deterioration during, or withdrawal of renal replacement therapy

### Hepatic failure (K70-77)

- Child-Pugh Classification: Grade B with a score of  $\geq$ 7, or Grade B with a score of  $\geq$ 9, or Grade C with a score of  $\geq$ 10 points
- · Irreversible liver failure and not being placed on a liver transplant waitlist (or having to wait a considerable amount of time)
- Recent/recurrent episodes of hepatic decompensation requiring treatment: encephalopathy, spontaneous bacterial peritonitis, esophageal varices and variceal bleeding, ascites, hepatic hydrothorax, type 2 hepatorenal syndrome
- Concomitant hepatocellular cancer
- In alcohol-related liver disease: ongoing alcohol use

## HIV infection (B20-21)

- AIDS
- Severe opportunistic multidrug-resistant AIDS-associated infections
- Concomitant malignancies (except for Kaposi sarcoma, non-Hodgkin lymphoma, and cervical cancer at International Federation of Gynecology and Obstetrics stage II)
- End-stage dementia, severe cardiac/pulmonary/renal disease
- . No response to antiretroviral therapy

A full list of references for the Table is provided in Supplementary material.

a A disease code according to the International Statistical Classification of Diseases and Related Health Problems, 10th Revision is provided in brackets for each disease.

Abbreviations: FEV1, forced expiratory volume in 1 second; FVC, forced vital capacity; H<sub>2</sub>O, dihydrogen monoxide; HbA<sub>1c</sub>, glycated hemoglobin A<sub>1c</sub>, ICD, implantable cardioverter-defibrillator; LVAD, left ventricular assist device; PCO<sub>2</sub>, partial pressure of carbon dioxide; PCO, partial pressure of oxygen; PPS, Palliative Performance Scale

TABLE 3 Needs-based criteria for specialist palliative care consultations in advanced disease

- Presence of severe (eg, intensity of ≥7/10 based on the Edmonton Symptom Assessment Schedule), complex, or persistent symptoms with no satisfactory response to optimal treatment or with limited response due to side effects of therapy
- Need for complex or dynamic support due to a spiritual or existential crisis (eg, request for hastened death, denial/collusion)
- Lack of specificity, agreement, or certainty with respect to the goals of care or expectations; decision-making hampered by the patient and/or people close to them
- Dying with severe symptoms
- · Possible need for palliative sedation
- · Patient's request

A full list of references for the Table is provided in Supplementary material.

## TABLE 4 Examples of disease-modifying treatment

- Cancer: chemotherapy, immunotherapy, radiation therapy (except for symptom control or palliative), and surgery (potentially curative)
- Heart failure: heart transplant, cardiac resynchronization therapy, mechanical circulatory support
- · Chronic respiratory failure: lung transplant, immunotherapy, artificial ventilation
- Multiple sclerosis: immunotherapy, autologous hematopoietic stem cell transplantation, artificial ventilation
- Motor neuron diseases: invasive or noninvasive ventilation (including high-flow nasal cannula oxygen therapy), percutaneous endoscopic gastrostomy (in amyotrophic lateral sclerosis)
- Pressure ulcers: operative wound—healing procedures, including myocutaneous or fasciocutaneous flaps, adjacent tissue transfer, or other local skin flaps, split thickness skin grafting, or full-thickness skin grafting
- · Renal failure: dialysis, renal transplant
- · Hepatic failure: liver transplant
- . HIV infection: antiretroviral therapy

A full list of references for the Table is provided in Supplementary material.

emphasized severe intensity of symptoms or presence of high-complexity problems of holistic nature, that is, related to physical, social, spiritual and/or emotional functioning. 43-48

Several different screening tools initially developed for evaluating patients' quality of life could also be used for monitoring the intensity of particular symptoms, thus assessing the need for PC. <sup>49</sup> These include the Edmonton Symptom Assessment System, the European Organization for Research and Treatment of Cancer (EORTC) Quality of Life Questionnaire – Core 30, EORTC Quality of Life Questionnaire – Core 15 – Palliative Care, the Sheffield Profile for Assessment and Referral for Care, or the Integrated Palliative Outcome Scale.

Tools dedicated for screening Several "trigger" tools useful in assessing the need for PC referral could be identified to help select patients at high risk for unmet needs by a simple screening assessment. The Center to Advance Palliative Care (CAPC) included the SQ in the primary criteria of potentially life-limiting or life-threatening conditions at the time of hospital referral, in conjunction with frequent hospital admissions (especially for symptoms difficult to

control), complex care requirements, and a decline in performance status. <sup>50</sup> Another universal instrument designed for screening purposes is the NECPAL tool, which combines the SQ with 13 additional indicators. <sup>11</sup> It turned out to be an accurate measure for identifying vulnerabilities in the general population. The Supportive and Palliative Care Indicators Tool is also a broadly-used questionnaire that helps identify people whose health is irreversibly deteriorating. It consists of 7 general indicators combined with specific indicants for cancer, dementia, neurological diseases, heart or vascular diseases, respiratory failure, and kidney or liver diseases. <sup>51</sup>

The National Comprehensive Cancer Network tool was specifically designed for and validated in patients with cancer. It comprises 11 items covering several clinical dimensions (including locally advanced or metastatic cancer, poor functional status, serious cancer complications, comorbidities or care complications, and additional specific problems), defining the needs for PC.43 The French Society for Palliative Support and Care proposed a 10-item, multidimensional questionnaire (PALLIA-10) aimed to identify the PC requirements.52 It allows for pointing out rapidly progressive and incurable disease, persistent symptoms, psychosocial problems, and inconsistencies in care plans with respect to treatment or patient values. Patients evaluated using PALLIA-10 are assigned a score from 0 to 10 points, and referral for PC is recommended for any person with a score greater than 3. Finally, Gemel et al<sup>8</sup> summarized 6 multifactorial tools used to proactively identify the majority of cancer patients prior to their terminal admission, comprising the following categories: specific disease, performance score, serious comorbidities, physical or psychosocial symptoms, and admission-related problems.8 Routine use of the abovementioned tools may support proactive identification of patients early in the trajectory of advanced illness, thus potentially reducing the number of unnecessary hospitalizations at the end-of-life stage. However, none of these referral "trigger" tools were compared for superiority.

Disease-modifying treatment In the relevant literature, numerous disease-modifying treatment modalities are described. They are also referred to as disease-directed therapy, curative-restorative or life-prolonging care, disease-focused treatment, or active treatment targeted at underlying diseases. Examples of such therapies are shown in TABLE 4. For instance, patients with cancer should receive dedicated PC early in the disease course, concurrently with active treatment, through referral to PC teams. On the other hand, it is possible that elements of PC can also be provided by an oncology team and PC could be delivered to patients whose disease is not responsive to curative treatment.

Models of palliative care delivery Unlike many health interventions, PC is an essential element of universal health coverage. Estimation carried out in Germany shows that the majority of seriously ill patients are potentially eligible for PC, and the number of these patients is expected to rise by 25% in the next 30 years. Globally, the burden of serious health-related suffering will almost double by 2060.

PC can be delivered at different levels: general (an approach offered by professionals with good basic PC skills and knowledge) and specialist. 61 According to the CAPC, this specialized (expert) medical care for people with serious illness can be regarded as the proper PC.62 However, approximately 75% to 80% of all PC patients do not have complex needs; thus, they do not require specialists in PC.63 The process of early identification of these patients, which is fundamental for the discussion of care-related goals, based on their wishes and needs, should start at the general (primary) care level provided by specialists in nonpalliative disciplines (oncologists, cardiologists and geriatrists, and others). 64,65 In the majority of cases, timely PC is preventive and aimed to minimize potential crises at the end of life.66 Through development of primary PC skills and prognosis assessment at every level of health care, more patients could benefit from better symptom control and support at earlier stages of disease. Therefore, such a universal palliative approach could also lower the risk of unnecessary labelling of patients as "palliative" when starting specialist PC (S-PC) too early. This would allow for S-PC services to be reserved for patients with more complex needs. Contrarily, as the aims of S-PC (particularly in noncancer diseases) are often concordant with disease-modifying therapy, it should not be applicable for implementation only at the end-of--life stage, when "there are no other options." Too late referrals correlate with more unmet needs, lower satisfaction with palliative services, and more concerns about the coordination of care. Eligible needs for S-PC may occur both in patients with a longer life prognosis or in better performance status (eg, these patients may more often require a response to complicated anxiety), and at the end-of-life stage, when they are physically exhausted (these, in turn, may require a response to respiratory symptoms or delirium and, particularly, family support). 67 However, in most cases, the need for PC, general or specialized, increases with the progression of the disease.<sup>26,68</sup>

**Challenges and future directions** Various models of early integration of outpatient S-PC were described for patients with advanced cancer: physician-only, nurse-led, or interdisciplinary care. <sup>69,70</sup> There is strong evidence that early (preferably sooner than a few months before death) palliative approach is most beneficial, not only in cancer. <sup>5,64,71</sup> Admittedly, in this scoping review,

a simple, unique, and universal definition of medical referral criteria for S-PC could not be indicated, however, the presented data can become a useful guide in aiding the screening process of patients in need of specialist care. Most of them will only require "timely" specialist consultation at first, while still receiving disease-modifying treatment (eg, chemotherapy).64 Continuous care during this phase of the illness demands a close cooperation between specialists in the disease and PC teams.<sup>68</sup> In the case of more complex needs, particularly near the end of life, S-PC may require a holistic approach to patient management and care. For this to occur, massive changes regarding the PC culture need to spread among all stakeholders and participants in the care system.

It should be emphasized that in none of the analyzed studies was access to S-PC limited to a restricted number of diseases. This is in opposition to the actual Polish reimbursement system, which limits it to a so-called "basket" of medical services, mainly available for cancer patients, regardless of the fact that an equally high symptom burden and care needs are observed in noncancer diseases. 65,72,73 Moreover, in nearly all of the analyzed studies, the needs-based aspect of referrals was taken into account, while it is not sufficiently appreciated within the Polish national health care system. Finally, the current national law regulations in Poland still do not recognize the substantial role of general PC. In consequence, a number of patients prematurely referred for S-PC do not fulfill the needs--based criteria (TABLE 3), thus limiting the access for those being in persistent, severe distress, and above all, at the end-of-life stage. In a recent accessibility study, it was shown that in 2018, one--sixth of eligible individuals were not provided with S-PC at home and almost one-third, with inpatient care.74 Most of them died waiting for their turn. There is an urgent necessity for changes in the Polish national health care system, particularly, for acknowledging the principal role of general PC and taking the defined needs-based criteria into consideration while also facilitating straightforward patient referrals, regardless of the predominant disease.75

**Limitations and conclusions** While this review provides updated information on what is known about the medical referral criteria for S-PC, the limitations encompass a risk of bias associated with the article search being restricted to 2 scientific databases and performed by a single researcher.

In the literature, numerous examples were provided for defining medical referral criteria concerning S-PC. These were divided into disease- or prognosis-based and needs-based. The discriminants characterizing life-limiting diseases in individual cases should preferably be used in clusters to accurately screen for eligibility. The presence of severe, complex, and persistent symptoms or problems occurring despite

optimal treatment and general care is equally significant as the limited life prognosis. In light of the above findings, the Polish national reimbursement coverage should be urgently extended to cover more patients who are eligible for and might benefit from S-PC. Additionally, the primary role of general PC should be universally acknowledged.

#### SUPPLEMENTARY MATERIAL

Supplementary material is available at www.mp.pl/paim.

#### **ARTICLE INFORMATION**

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CONFLICT OF INTEREST None declared.

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