## Haematology and specialist palliative medicine education and training

In Italy it had not been possible, for newly graduated doctors, to choose specific training courses to become palliative care (PC) doctors, as specialty schools in PC had not vet been established until the conversion of the law decree 19 May 2020, into law. After that, the specialty school in medicine and PC has been instituted, starting from the academic year 2021-2022. Of note, the specific minimum requirements for the suitability of the training network type within the new school first identified the structural requirements which were designated as university or affiliated specialist structures that must be present in the training network. The latter included medical oncology, medicine, internal anaesthesia, intensive care and pain therapy, geriatrics, neurology, hospices, both domiciliary and ambulatory PC units and hospital consultancy PC services (table 1) but, rather surprisingly, haematology was ignored. Similarly, under the disciplinary requirements, the disciplinary scientific sectors which were considered compulsory and indispensable in the new specialty school in medicine and PC included only the following fundamental teachings: medical oncology, neurology, internal medicine and anaesthesia, intensive care and pain therapy (table 1). This contrasts with the previous ministerial recommendations.

Consistent with this, as required by law 38/2010, the ministerial decree of 28 March 2013 had provided the first definition of PC, a discipline never regulated before then, placing it in diagnostic medicine and services and identifying the equivalent medical specialties which, importantly, had included haematology, in addition to anaesthesia and intensive care, geriatrics, infectious disease, internal medicine, neurology, oncology, paediatrics, radiotherapy (table 1).

We believe the recognition of the potential educational and training value of the haematological scientific knowledge, both theoretical and practical, within the core curriculum of a specialist in PC, is mandatory and urgent for a variety of major clinical and ethical reasons.

First, patients with haematological malignancies, compared with patients with solid tumours, undergo more intensive care at the end of life and make less use of hospices, synonyms of a reduced overall quality of care.<sup>1</sup> Second, and strictly related to the former, haematologists tend to delay discussion of goals of care and associated outcomes until end of life, compared with oncology specialists, because haematologists find it more difficult to talk about prognosis, advanced treatment plan and death-related topics.<sup>1</sup> The obstacles identified by haematologists are mainly the patients' excessive expectations, the fear of reducing the patients' hope, the lack of time, the uncertainty of prognostic information and unrealistic doctors' expectations.<sup>1</sup> A recent study from the Emilia-Romagna region, Italy, showed an increasing use of PC at home, and in outpatient and hospice settings, involving 62.8% of patients with cancer in the last 6 months of life, from 2010 to 2019. However, among the total of 174.658 patients with cancer receiving PC, only 8.6% were patients with haematological malignancies and only 0.6% were patients with haematological malignancies receiving PC care on an outpatient basis,<sup>2</sup> reinforcing the absolute need to overcome barriers to PC in the haematology setting, also in Italy. Third, patients with haematological malignancies often have a substantial need for blood transfusion to manage symptoms of fatigue, dyspnoea and bleeding, and poor availability of transfusion access in hospices and the relative or complete absence of structures for home-based transfusions may represent specific barriers to adequate PC to haematology patients. Fourth, benefits associated with early palliative care (EPC), delivered within 8 weeks of diagnosis of advanced-stage solid cancer, have been acknowledged to include improved symptoms and quality of life, reduced aggressiveness of end-of-life treatments. increased survival and increased caregiver well-being.<sup>3</sup> The benefits of inpatient EPC have also been demonstrated in randomised studies of patients with haemopoietic stem cell transplant (HSCT) and acute myeloid leukaemia (AML),<sup>13</sup> while the benefits of outpatient EPC has been shown in a real-life study of Italian patients with AML.<sup>4</sup> Based on these data, a recommendation

Table 1 Italian ministerial decrees on education themes and requirements in PC	
Italian Ministerial decree 28 March 2013: equivalent specialties to palliative care	Anaesthesia and intensive care, geriatrics, haematology, infectious disease, internal medicine, neurology, oncology, paediatrics, radiotherapy
Italian Ministerial decree 19 May 2020, specialty school of medicine and palliative care. Structural requirements (annex B1): university or affiliated specialist structures that must be present in the training network	Medical oncology, internal medicine, anaesthesia, intensive care and pain therapy, geriatrics, neurology, hospices, domiciliary PC units, ambulatory PC units and hospital consultancy PC services
Italian Ministerial decree 19 May 2020, specialty school of medicine and palliative care. Disciplinary requirements (annex B1): disciplinary scientific sectors considered compulsory and indispensable	Medical oncology, neurology, internal medicine and anaesthesia, intensive care and pain therapy (fundamental teachings)
PC, palliative care.	

to implement EPC for patients with AML has also recently been introduced by the Italian Society of Haematology.<sup>5</sup>

However, referrals to PC services are still made too late because of misperceptions that PC is end-oflife care and PC remains synonymous with end-of-life care due to late referrals.<sup>1 3</sup> Of importance, not only engagement and education of policy makers, stakeholders and the public, but also education and training of health professionals in EPC could favour development of PC in haematology wards and avoid the stigma inherent with PC.<sup>1 3</sup> However, to address this issue, different EPC triggers, specific for different haematological malignancies, should be identified and taught to PC specialists. For example, it should be recognised that early PC is needed, for patients with AML or refractory/relapsing aggressive B cell lymphomas, as well as for patients receiving HSCT and chimeric antigen receptor-T cell therapies, due to persistently high symptom burden and moderatehigh mortality risk.<sup>1</sup> On the other hand, PC on demand, based on specific triggers related to varying symptom severity is warranted sometimes, often at earlier disease phases, in patients with myelofibrosis or in patients with indolent B cell lymphomas, or other chronic haematological malignancies, for example, on their subsequent active disease recurrences.<sup>1</sup>

In conclusion, we believe that the evidence cited above may well clarify that recognition of the haematology discipline in the Italian specialty school in medicine and PC is neither just a matter of academic debate nor a sterile and an end manifestation of corporatism but reflects pragmatic needs and reconciles with the desired training of dual-board certified medical haematologist/oncologist and PC physician by American Society of Clinical Oncology.<sup>3</sup> We hope that the Italian Ministry of Health and University will consider these instances and contribute to better satisfy the PC needs of haematological patients and primary caregivers by improving curricula in academic education to avoid that not only oncologists but also haematologists too often swap PC with end-of-life care and to ensure that death, dying and grieving are recognised as valuable, also in the haematology wards.

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