# Involvement of palliative care in patients requesting medical assistance in dying

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## Abstract

**Objective** To determine the level of palliative care involvement before and after medical assistance in dying (MAID) requests, and to compare the differences between those who completed MAID and those who requested but did not complete MAID.

**Design** Retrospective chart review.

**Setting** The Ottawa Hospital (TOH) in Ontario.

**Participants** Ninety-seven patients who requested MAID at TOH between February 6, 2016, and June 30, 2017.

**Main outcome measures** Completion of MAID.

**Results** Eighty-four patients were included in the study. Fifty patients (59.5%) completed MAID. The most common reasons for not completing MAID were death before completion of the required assessments (47.0%), ineligibility (26.5%), and loss of capacity (14.7%). The most common diagnoses were cancer (72.6%) and neurologic disease (11.9%). The most frequent reasons for requesting MAID were physical suffering (77.4%), loss of autonomy (36.9%), and poor quality of life (27.4%). Patients who completed MAID in this study were more likely to report physical suffering as the reason for their request than those who did not complete MAID (84.0% vs 67.6%; $P = .08$), yet only 23.8% of all patients requesting MAID had an Edmonton Symptom Assessment Scale completed. Before MAID request, 27.4% of patients had a community palliative care physician and 59.5% had palliative care involvement in any setting. The TOH palliative care team was involved in 46.4% of patients who requested MAID.

**Conclusion** There is still inadequate provision of palliative care for those requesting MAID. Guidelines, legislation, and guidance are needed to help physicians ensure patients are aware of and understand the benefits of palliative care in end-of-life decisions. However, the involvement of palliative care with patients who completed MAID was similar to those who did not complete MAID. Multicentre studies are needed to further explore the MAID process and clarify the role of palliative care in that process.

## Editor's key points

- A gap in the provision of palliative care exists among those who request medical assistance in dying (MAID). When MAID is requested, palliative care options should be offered to the patient, but there are no guidelines or legislation that mandate referral to palliative care. Consequently, patients might not be aware of palliative care as a means to control symptoms or improve quality of life.
- There is no guidance as to how, when, and where palliative care should be delivered. Care centres and hospitals have differing protocols regarding palliative care and MAID.
- Giving patients the option for palliative care is important, as those without access to palliative care might have a high symptom burden and might consider MAID as a way to end their suffering.

## Points de repère du rédacteur

- Il y a des lacunes dans la prestation des soins palliatifs aux personnes qui demandent l'aide médicale à mourir (AMAM). Lorsque l'AMAM est demandée, il faudrait offrir aux patients des options de soins palliatifs, mais il n'y a pas de lignes directrices ou de lois qui obligent à ce qu'on demande une consultation en soins palliatifs. Par conséquent, les patients pourraient ne pas savoir que les soins palliatifs sont des moyens de contrôler les symptômes ou d'améliorer la qualité de vie.
- Il n'y a pas de directives quant à la façon ou au moment de fournir les soins palliatifs, ni à l'endroit où le faire. Les centres de soins et les hôpitaux ont des protocoles différents concernant les soins palliatifs et l'AMAM.
- Il est important d'offrir aux patients l'option de recevoir des soins palliatifs, car il est possible que ceux qui n'y ont pas accès ressentent un lourd fardeau de symptômes et envisagent l'AMAM comme moyen de mettre fin à leurs souffrances.

# Implication des soins palliatifs auprès des patients qui demandent l'aide médicale à mourir

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## Résumé

**Objectif** Déterminer le degré d'implication des soins palliatifs avant et après les demandes d'aide médicale à mourir (AMAM), et comparer les différences entre ceux qui ont reçu l'AMAM et ceux qui, bien que l'ayant demandée, n'y ont pas eu recours.

**Type d'étude** Examen rétrospectif des dossiers.

**Contexte** L'Hôpital d'Ottawa (L'HO) (Ontario).

**Participants** Quatre-vingt-dix-sept patients qui ont demandé l'AMAM à L'HO entre le 6 février 2016 et le 30 juin 2017.

**Principaux paramètres à l'étude** L'administration de l'AMAM.

**Résultats** L'étude portait sur 84 patients. Cinquante d'entre eux (59,5 %) ont reçu l'AMAM. Parmi les raisons les plus fréquentes de ne pas avoir reçu l'AMAM figuraient le décès avant l'achèvement des évaluations requises (47,0 %), l'inadmissibilité (26,5 %) et la perte de l'aptitude (14,7 %). Les diagnostics les plus courants étaient le cancer (72,6 %) et les maladies neurologiques (11,9 %). Les motifs les plus fréquents de la requête d'AMAM étaient la souffrance physique (77,4 %), la perte d'autonomie (36,9 %) et la mauvaise qualité de vie (27,4 %). Dans cette étude, il était plus probable que les patients qui avaient reçu l'AMAM aient mentionné la souffrance physique comme étant la motivation de leur demande par rapport à ceux qui n'avaient pas reçu l'AMAM (84,0 c. 67,6 %; $p$ = ,08), et pourtant, seulement 23,8 % de tous les patients qui avaient demandé l'AMAM avaient été évalués selon l'Échelle d'évaluation des symptômes d'Edmonton. Avant leur demande d'AMAM, 27,4 % des patients avaient un médecin de soins palliatifs, et il y avait eu une implication des soins palliatifs dans 59,5 % des cas, quel que soit le milieu. L'équipe des soins palliatifs de L'HO s'est impliquée auprès de 46,4 % des patients qui avaient demandé l'AMAM.

**Conclusion** La prestation de soins palliatifs à ceux qui demandent l'AMAM est encore insuffisante. Il faut des lignes directrices, des lois et des orientations pour aider les médecins à faire en sorte que les patients soient au courant des soins palliatifs et comprennent leurs bienfaits dans les décisions en fin de vie. Par ailleurs, l'implication des soins palliatifs auprès des patients ayant reçu l'AMAM était semblable à celle dont avaient bénéficié ceux ne l'ayant pas reçue. Des études multicentriques sont nécessaires pour explorer plus en profondeur le processus de l'AMAM et préciser le rôle des soins palliatifs dans ce processus.

Medical assistance in dying (MAID) is defined as the "circumstances where a medical practitioner or nurse practitioner, at an individual's request: (a) administers a substance that causes an individual's death; or (b) prescribes a substance for an individual to self-administer to cause their own death."[1]

In February 2015, the Supreme Court of Canada ruled to amend the Criminal Code and allow MAID.[2] Medical assistance in dying was subsequently decriminalized with the passing of Bill C-14 by parliament on June 17, 2016.[3] Health care institutions and the medical community were mandated to ensure timely access for patients requesting MAID. Federal legislation established eligibility criteria for MAID, which included informed consent and being aware of the availability of other means to relieve suffering, including palliative care.[4] Despite the imperative to ensure that physical suffering is minimized for those seeking MAID, there are no clear requirements on the timing, extent, and setting of palliative care delivery for those requesting MAID.

Palliative care is provided by a combination of family physicians, nurse practitioners, community palliative care physicians, and hospital palliative medicine consultants.[5] However, in Ontario and in other similar Canadian jurisdictions, about 50% of patients at end of life do not receive palliative care in any setting (eg, inpatient, outpatient, in the home).[6] There is no formal hospice system in Canada where, for example, a patient in the last 6 months of life is enrolled. This gap in access to palliative care in Canada is concerning, as it is conceivable that those who do not receive adequate palliative care might have a higher burden of physical symptoms and potentially an increased likelihood of requesting MAID as a means to address their suffering. Very little evidence, however, exists to explore this intersection of palliative care delivery and quality with MAID requests and completion.

The objective of this study was to describe the level of palliative care involvement in patients requesting MAID, and to show the differences between those who completed MAID and those who requested but did not complete MAID.

## Methods

### Study design and setting

We conducted a retrospective chart review of hospital records of all individuals formally requesting MAID at The Ottawa Hospital (TOH) in Ontario between February 6, 2016, and June 30, 2017. We compared differences between those who completed MAID and those who requested but did not complete MAID.

The Ottawa Hospital is a 1202-bed tertiary care teaching hospital comprising 3 campuses. Each year, TOH provides care for approximately 60 000 inpatients and receives 1.2 million ambulatory care visits.[7] The MAID program at TOH is led by the Ethics Department and was established in February 2016. It consists of a team of volunteer physicians, nurses, social workers, speech-language pathologists, psychologists, and pharmacists. The TOH MAID office is a coordination service that receives MAID requests from inpatients admitted at TOH and outpatients in the community, and connects them with MAID assessors either at TOH or at programs closer to their home. Patients eligible for MAID can have the procedure performed by TOH staff either at their home or at TOH, but procedures are increasingly done in patients' homes. A supportive and palliative care (SPC) consultation is not a requirement at TOH when a patient requests MAID. The SPC team consists of palliative medicine specialists, nurses who specialize in palliative care, and social workers. In discussing a patient's MAID request, it is an expectation that the most responsible physician has provided information about palliative care to the patient and his or her family after the formal MAID request.

### Data collection and analysis

An independent reviewer (A.R.) extracted the following information from individuals' electronic medical records: baseline demographic characteristics, underlying diagnoses, reasons for MAID request, Edmonton Symptom Assessment Scale (ESAS) completion, access to and involvement of palliative care practitioners, timeline of MAID assessment process, and MAID outcome. The primary outcome was MAID completion. The ESAS is a validated tool used to assess a patient's physical symptoms and severity on a scale from 0 to 10 (available online at **http://www.ottawahospital.on.ca/en/clinical-services/deptpgrmcs/departments/anesthesiology/complex-cancer-pain-clinic/**).

We used a thematic analysis of MAID assessment documentation to determine the key reasons behind MAID requests. Two independent reviewers (C.M. and A.R.) found common themes, and these were condensed by a third independent reviewer (R.R.) into 6 themes: physical suffering, psychological suffering, poor quality of life, loss of autonomy, loss of dignity, and fear of dying.

We used descriptive statistics (means, proportions) to describe the study population. Bivariate statistical tests ($\chi^2$ test, $t$ test) were used to compare MAID completion across patients, diagnoses, and request characteristics. All analyses were conducted using SAS version 9.3.

### Ethics approval

This study was approved by the Ottawa Health Science Network Research Ethics Board.

## Results

A total of 97 patients requested MAID at TOH during the study period. We excluded 6 patients who requested MAID but had no further follow-up. These were patients

who did not have electronic medical records at TOH and either did not return telephone calls from the MAID office or deferred the assessment process. We also excluded 7 patients who were directed outside TOH to MAID programs closer to their homes, leaving 84 patients in the final cohort. Slightly more than half of the cohort (54.8%) was male and the mean age was 68.7 years (**Table 1**). Overall, 61.9% of patients were married or had common-law partners. Slightly more than one-third identified as religious, with Roman Catholic being the most common religion. Before hospitalization, roughly half (51.2%) of patients lived at home with family, 16.7% at home alone, 14.3% in a retirement home, and 10.7% in a nursing home. Most patients (92.8%) had a family physician; of those family physicians, 30.8% provided palliative care. Most patients lived in an urban area (91.7%) and had potential access to regional community palliative care services (90.5%).

## Characteristics of patients completing MAID

Fifty patients completed MAID. Of the 34 patients who did not complete MAID, the most common reasons were death before completion of the required assessments (47.0%), ineligibility (26.5%), and loss of capacity (14.7%). Completion of MAID was unknown for 11.8% of the 34 patients, as no documentation was received by TOH MAID office after their assessments were completed. Those having the procedure as an inpatient accounted for 1.1% of all deaths at TOH during the study period. There was 1 significant difference in patient characteristics between those who completed MAID and those who did not (**Table 1**): patients who did not complete MAID were more likely to live in an urban setting ($P=.02$). The data indicated that patients who completed MAID were more likely to live at home with family than home alone or in a nursing home ($P=.06$).

## Primary diagnoses of patients requesting MAID

Of the patients who requested MAID, 72.6% had cancer, with 60.7% having metastatic and 11.9% having nonmetastatic. Neurologic disease (11.9%) was the second most common diagnosis and included amyotrophic lateral sclerosis, progressive supranuclear palsy, and multiple sclerosis (**Figure 1**). Pulmonary disease was present in 4.8% of patients, and 2.4% had cardiovascular disease. Other noncancer diseases included primary sclerosing cholangitis, end-stage liver disease, rheumatoid arthritis, visual impairment, high-output ostomy, Waldenström macroglobulinemia, and obesity. There was no difference in MAID completion by primary diagnosis between metastatic cancer, nonmetastatic cancer, and noncancer diagnoses ($P=.40$). In the noncancer subgroup, there was some evidence that patients with neurologic disease were more likely to complete MAID than patients with cardiovascular or pulmonary disease, but these results did not reach statistical significance ($P=.06$).

## Reasons for MAID request

Most patients (79.8%) provided more than 1 reason for requesting MAID (**Table 2**). Patients who completed MAID were more likely to report 2 or more reasons for their MAID request than those who did not ($P=.01$). The most common reason for a MAID request was physical suffering (77.4%), followed by loss of autonomy (36.9%) and poor quality of life (27.4%). Individuals who completed MAID were more likely to have physical suffering documented as a reason for requesting MAID than those who did not complete MAID (84.0% vs 67.6%), but this difference did not reach statistical significance ($P=.08$; **Table 2**). Only 23.8% of all patients completed the ESAS.

## Medical assistance in dying process

The general MAID process involves a formal request and witnessed consent by the patient, 2 independent assessments, and the MAID procedure at which time the patient is required to consent again (**Figure 2**). Patients who completed MAID did more of their assessments as outpatients than those who did not complete MAID (74.0% vs 60.0%), but this difference did not reach statistical significance ($P=.11$). The median time from MAID request to completion for the 50 patients who completed MAID in this study was 20 days (range of 5 to 157 days), which is in line with Canadian legislation, where a minimum 10-day reflection period from MAID request to MAID procedure is required.[4] Those who completed MAID had to wait a median of 5 days from request to first assessment and a median of 4 days from first to second assessment. The second interval tended to be longer for patients who did not complete MAID (median of 4.5 days from request to first assessment; median of 11.5 days from first to second assessment).

Of the 50 patients who completed MAID, 60.0% had the procedure in an acute care inpatient setting, 26.0% in their homes, and 14.0% in other locations. Most of the patients completing MAID at TOH were not admitted inpatients, but came to TOH for the MAID procedure (results not shown). The MAID process and procedure was expedited for 10 (20.0%) patients owing to imminent risk of loss of capacity (5 patients), clinical deterioration with risk of imminent death or loss of capacity (3 patients), or high symptom burden with risk of imminent death or loss of capacity (2 patients).

## Palliative care involvement in patients requesting MAID

Overall, 27.4% of patients had a community palliative care physician and 59.5% had some level of palliative care involvement before requesting MAID (**Table 3**). Among the 34 patients with no or unknown palliative care involvement before their MAID request, 58.8% were offered palliative care during their MAID assessment. The number of subsequent palliative care referrals and how

**Table 1.** Characteristics of patients who requested, completed, or did not complete MAID at The Ottawa Hospital in Ontario

| PATIENT CHARACTERISTICS | PATIENTS WHO REQUESTED MAID (N = 84) | PATIENTS WHO COMPLETED MAID (N = 50) | PATIENTS WHO DID NOT COMPLETE MAID (N = 34) | *P* VALUE |
|---|---|---|---|---|
| Mean (SD) age | 68.7 (15.2) | 69.4 (14.2) | 67.7 (16.6) | .61 |
| Sex, n (%) | | | | |
| • Male | 46 (54.8) | 30 (60.0) | 16 (47.0) | .24 |
| • Female | 38 (45.2) | 20 (40.0) | 18 (53.0) | |
| Neighbourhood, n (%) | | | | |
| • Urban | 77 (91.7) | 43 (86.0) | 34 (100.0) | .02 |
| • Rural | 7 (8.3) | 7 (14.0) | 0 (0.0) | |
| Marital status, n (%) | | | | |
| • Married or common law | 52 (61.9) | 33 (66.0) | 19 (55.9) | .49 |
| • Single* | 29 (34.5) | 16 (32.0) | 13 (38.2) | |
| • Unknown | 3 (3.6) | 1 (2.0) | 2 (5.9) | |
| Religious, n (%) | | | | |
| • Yes | 29 (34.5) | 18 (36.0) | 11 (35.3) | .62 |
| • No | 46 (54.8) | 28 (56.0) | 18 (52.9) | |
| • Unknown | 9 (10.7) | 4 (8.0) | 5 (14.7) | |
| Place of residence, n (%) | | | | |
| • Home with family | 43 (51.2) | 30 (60.0) | 13 (38.2) | .06 |
| • Home alone | 14 (16.7) | 7 (14.0) | 7 (20.6) | |
| • Retirement home | 12 (14.3) | 7 (14.0) | 5 (14.7) | |
| • Nursing home | 9 (10.7) | 4 (8.0) | 5 (14.7) | |
| • Other hospital | 2 (2.4) | 2 (4.0) | 0 (0.0) | |
| • Unknown | 4 (4.8) | 0 (0.0) | 4 (11.8) | |
| Has family physician, n (%) | 78 (92.8) | 47 (94.0) | 31 (91.2) | .68 |
| Family physician provides palliative care, n (%) | | | | |
| • Yes | 24 (28.6) | 12 (24.0) | 12 (35.3) | .06 |
| • No | 30 (35.7) | 23 (46.0) | 7 (20.6) | |
| • Unknown | 30 (35.7) | 15 (30.0) | 15 (44.1) | |
| Regional palliative care provider available, n (%) | 76 (90.5) | 46 (92.0) | 30 (88.2) | .71 |

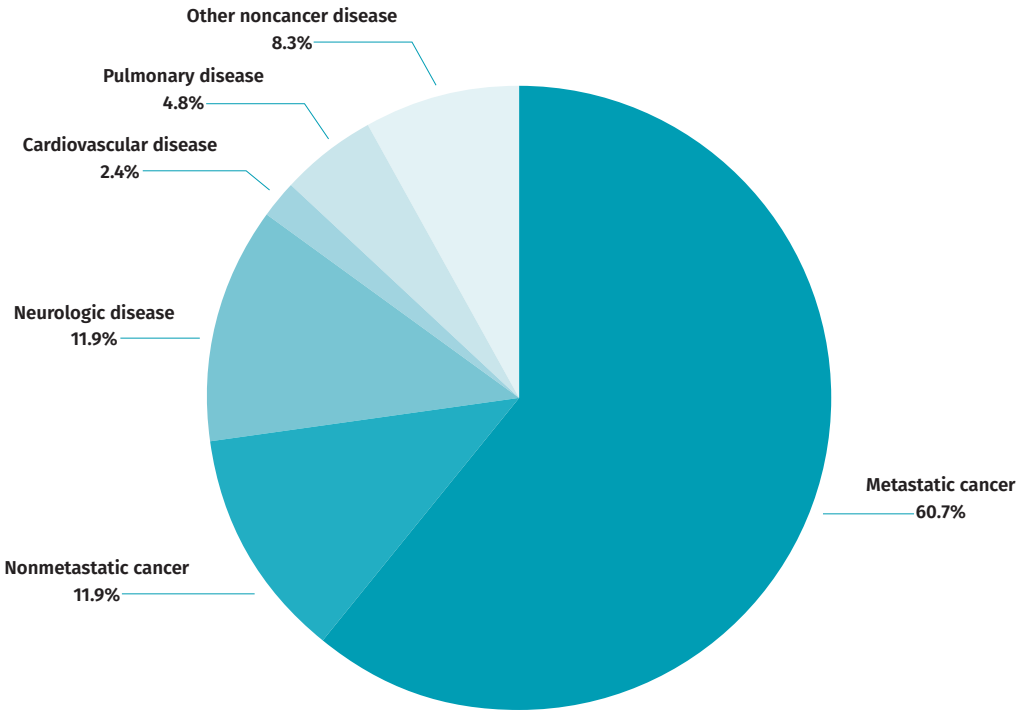
MAID—medical assistance in dying.
*Includes widowed and divorced individuals.

many of them resulted in a palliative care consultation is unknown. The TOH palliative care team was involved in 78.3% of patients who were assessed for MAID as a TOH inpatient and in 30.9% of patients who were assessed as an outpatient. Patients who completed MAID had less inpatient palliative care team involvement at any point in the MAID process compared to those who did not complete MAID (42.0% vs 52.9%), but this difference did not reach statistical significance ($P$=.32). There was no difference in inpatient palliative care team involvement depending on the location of MAID assessments (inpatients, $P$=.86; outpatients, $P$=.79). Between patients who did and who did not complete MAID, there was no significant difference in palliative care involvement when comparing previous contact with a community palliative care physician ($P$=.71) or palliative care involvement before MAID request in any setting ($P$=.69).

## Discussion

The completion rate of MAID in this study was 59.5%. Medical assistance in dying procedures occurring at TOH accounted for 1.1% of deaths at TOH during the study period, which is close to national and provincial data.

**Figure 1.** Primary diagnosis of patients who requested MAID




MAID—medical assistance in dying.

In Canada, MAID accounted for 1.07% of all deaths between July 1, 2017, and December 31, 2017, an increase of 29.3% since the last reporting period between January 1, 2017, and June 30, 2017.[8] At the provincial level, MAID accounted for 0.4 to 1.8% of all deaths, similar to international jurisdictions with assisted dying protocols (0.3% to 4%).[8]

Individuals who requested MAID tended to be men and women in their 60s with a cancer diagnosis living in an urban setting. The fact that 61.7% of patients who did not complete MAID either died or lost capacity before MAID assessments or procedure could be completed suggests that they were close to death at the time of their MAID request. Those with neurologic disease were more likely to complete MAID than patients with cardiovascular or pulmonary disease. The exact reasons for this are unknown due to the retrospective nature of this study. However, an explanation could be that many neurologic conditions like amyotrophic lateral sclerosis are continuously progressive and are associated with a greater loss of function than chronic cardiorespiratory disease, which is characterized by flares and remissions. Therefore, patients might request MAID during a flare but then recover with adequate symptom management and quality of life and no longer wish to pursue MAID. Moreover, those who completed MAID were more likely to live with their families. Having a supportive family could also mean stronger advocacy and better access to care at the end of life, including facilitation of MAID requests and travel to and from MAID assessments.

In addition, 39.3% of those who requested MAID had no previous palliative care involvement. This gap in access to palliative care is less than that identified by a recent study of patients at the end of life in Ontario, which showed that roughly 50% of patients did not receive palliative care in any setting.[6] Comparing TOH to a similar academic tertiary acute care centre in Ontario, the University Health Network (UHN), the UHN had a slightly higher completion rate (25 of 29 patients [86%]) and had an even higher rate of specialty palliative care services involvement (28 of 29 patients [97%]).[9] This difference could be explained by institutional differences between TOH and the UHN, where the UHN encourages palliative care consultation before MAID assessment occurs,[9] whereas an SPC consult is not a requirement at TOH when a patient requests MAID. In terms of TOH, we observed slightly lower levels of inpatient SPC team involvement in patients who completed MAID compared to those who did not complete MAID. This could be owing to the fact that patients who completed MAID tended to have their assessments as outpatients and would not have had access to the inpatient SPC team. In contrast, those requesting MAID as inpatients had more inpatient SPC team involvement as they were probably sicker than their outpatient counterparts and probably had less support or decreased function at home, resulting in their admission.

**Table 2.** Details of MAID process

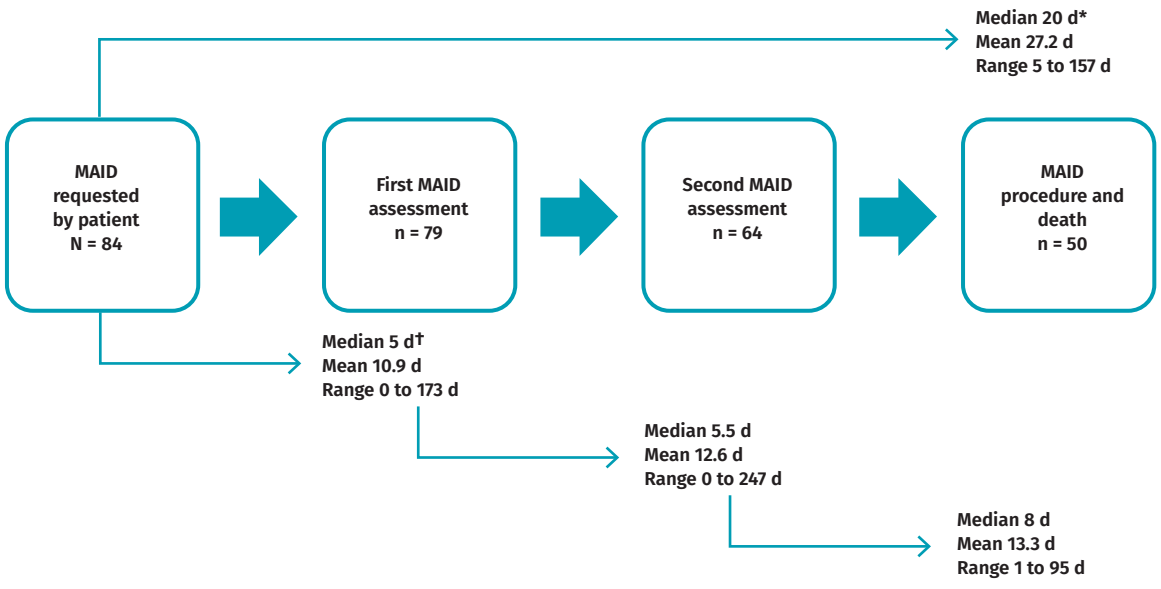
| MAID VARIABLES | PATIENTS WHO REQUESTED MAID, N (%) (N = 84) | PATIENTS WHO COMPLETED MAID, N (%) (N = 50) | PATIENTS WHO DID NOT COMPLETE MAID, N (%) (N = 34) | *P* VALUE |
|---|---|---|---|---|
| No. of reasons for MAID request | | | | |
| • 1 | 9 (10.7) | 5 (10.0) | 4 (11.8) | .01 |
| • 2 or more | 67 (79.8) | 44 (88.0) | 23 (67.6) | |
| • Unknown | 8 (9.5) | 1 (2.0) | 7 (20.6) | |
| Reasons for MAID request | | | | |
| • Physical suffering | 65 (77.4) | 42 (84.0) | 23 (67.6) | .08 |
| • Psychological suffering | 8 (9.5) | 6 (12.0) | 2 (5.9) | .46 |
| • Poor quality of life | 23 (27.4) | 15 (30.0) | 8 (23.5) | .51 |
| • Loss of autonomy | 31 (36.9) | 19 (38.0) | 12 (35.3) | .8 |
| • Fear of dying | 1 (1.2) | 1 (2.0) | 0 (0.0) | > .99 |
| • Loss of dignity | 3 (3.6) | 2 (4.0) | 1 (2.9) | > .99 |
| ESAS completed | | | | .23 |
| • Yes | 20 (23.8) | 13 (26.0) | 7 (20.6) | |
| • No | 57 (67.9) | 35 (70.0) | 22 (64.7) | |
| • Unknown | 7 (8.3) | 2 (4.0) | 5 (14.7) | |
| Patient had previous MAID request | | | | .07 |
| • Yes | 3 (3.6) | 1 (2.0) | 2 (5.9) | |
| • No | 78 (92.9) | 49 (98.0) | 29 (85.3) | |
| • Unknown | 3 (3.6) | 0 (0.0) | 3 (8.8) | |
| MAID assessment location* | | | | |
| • Inpatient | 23 (28.8) | 13 (26.0) | 10 (33.3) | .24 |
| • Outpatient | 55 (68.8) | 37 (74.0) | 18 (60.0) | |
| • Unknown | 2 (2.5) | 0 (0.0) | 2 (6.7) | |

ESAS—Edmonton Symptom Assessment Scale, MAID—medical assistance in dying.
*Four patients passed away before first assessment.

Unrelieved suffering is a requirement for MAID eligibility and physical suffering was the most frequent reason for requesting MAID in this study. This is in contrast to previous Canadian and international studies where loss of autonomy was the main reason.[9-11] This difference might be owing to variations in physician charting, with a focus on medical reasons rather than existential ones. Moreover, although the ESAS is a validated tool used to assess physical symptoms,[12] only 23.8% of all patients in this study had an ESAS completed to assess their physical symptoms. This is likely owing to the fact that the ESAS is currently not a mandatory part of MAID assessments at TOH and most non–palliative care specialists doing the assessments might not be familiar with it.

Concerns have been raised that those without adequate access to palliative care might have a higher symptom burden and therefore a higher likelihood to seek MAID as a means to address their suffering. Even with access to palliative care and established safety of opiate use, some patients might refuse opiates or palliative care involvement because they fear they will become ineligible for MAID if the medications cause them to become too drowsy.[9] While most individuals have multiple and complex reasons for requesting MAID, this study found that physical suffering was the most frequently documented reason, which points to a potential need for increased palliative care involvement for symptom management in patients requesting MAID. Patients should be educated that palliative care and MAID are not mutually exclusive options at the end of life and pursuing MAID should not preclude attempts to control symptoms or improve quality of life. Although some patients might be well informed of palliative care and still refuse it, others might not be fully informed and require a conversation of how palliative care can help them, a conversation that is currently not well documented in the MAID assessments.

**Figure 2.** Medical assistance in dying process and timeline




MAID—medical assistance in dying.

*10 patients had MAID expedited.

†Excluded 7 patients with formal MAID request and consent signed after first MAID assessment.

**Table 3.** Palliative care involvement in patients who requested, completed, or did not complete MAID

| CHARACTERISTIC | PATIENTS WHO REQUESTED MAID, N (%) | PATIENTS WHO COMPLETED MAID, N (%) | PATIENTS WHO DID NOT COMPLETE MAID, N (%) | *P* VALUE |
|---|---|---|---|---|
| Previous contact with community PC physician (n = 84) | | | | .71 |
| • Yes | 23 (27.4) | 15 (30.0) | 8 (23.5) | |
| • No | 55 (65.5) | 31 (62.0) | 24 (70.6) | |
| • Unknown | 6 (7.1) | 4 (8.0) | 2 (5.9) | |
| Involvement of PC before MAID request in any setting (n = 84) | | | | .69 |
| • Yes | 50 (59.5) | 30 (60.0) | 20 (58.8) | |
| • No | 33 (39.3) | 19 (38.0) | 14 (41.2) | |
| • Unknown | 1 (1.2) | 1 (2.0) | 0 (0.0) | |
| Offered PC after MAID request (n = 84) | | | | .26 |
| • Yes | 39 (46.4) | 22 (44.0) | 17 (50.0) | |
| • No | 39 (46.4) | 26 (52.0) | 13 (38.2) | |
| • Unknown | 6 (7.1) | 2 (4.0) | 4 (11.8) | |
| Offered PC after MAID request among patients with previous PC involvement (n = 50) | | | | .14 |
| • Yes | 19 (38.0) | 9 (30.0) | 10 (50.0) | |
| • No | 26 (52.0) | 19 (63.3) | 7 (35.0) | |
| • Unknown | 5 (10.0) | 2 (6.7) | 3 (15.0) | |

**Table 3** *continued on page 841*

**Table 3** *continued from page 840*

| CHARACTERISTIC | PATIENTS WHO REQUESTED MAID, N (%) | PATIENTS WHO COMPLETED MAID, N (%) | PATIENTS WHO DID NOT COMPLETE MAID, N (%) | *P* VALUE |
|---|---|---|---|---|
| Offered PC after MAID request among patients with no or unknown previous PC involvement (n = 34) | | | | .39 |
| • Yes | 20 (58.8) | 13 (65.0) | 7 (50.0) | |
| • No | 13 (38.2) | 7 (35.0) | 6 (42.8) | |
| • Unknown | 1 (2.9) | 0 (0.0) | 1 (7.1) | |
| Involvement of TOH PC before and after MAID request (n = 84) | | | | .32 |
| • Yes | 39 (46.4) | 21 (42.0) | 18 (52.9) | |
| • No | 45 (53.6) | 29 (58.0) | 16 (47.1) | |
| Involvement of TOH PC among patients with outpatient MAID request (n = 55)* | | | | .79 |
| • Yes | 17 (30.9) | 11 (29.7) | 6 (33.3) | |
| • No | 38 (69.1) | 26 (70.3) | 12 (66.7) | |
| Timing of TOH PC involvement among patients with outpatient MAID assessments (n = 17) | | | | .21 |
| • Before MAID request | 14 (82.4) | 10 (90.9) | 4 (66.7) | |
| • After MAID request | 3 (17.6) | 1 (9.1) | 2 (33.3) | |
| Involvement of TOH PC among patients with inpatient MAID assessments (n = 23)* | | | | .86 |
| • Yes | 18 (78.3) | 10 (76.9) | 8 (80.0) | |
| • No | 5 (21.7) | 3 (23.1) | 2 (20.0) | |
| Timing of TOH PC involvement among patients with inpatient MAID assessments (n = 18) | | | | .62 |
| • Before MAID request | 15 (83.3) | 9 (90.0) | 6 (75.0) | |
| • After MAID request | 3 (16.7) | 1 (10.0) | 2 (25.0) | |

MAID—medical assistance in dying, PC—palliative care, TOH—The Ottawa Hospital.
*Excludes 4 patients who passed away before first MAID assessment and 2 patients with unknown MAID assessment location.

## Limitations

This study has several limitations, including its small sample size and retrospective nature. As a result, while some of our observed differences were relatively large and potentially clinically meaningful, we had limited study power to detect statistically significant differences in our analyses. The chart review also does not allow for an in-depth exploration of reasons for requesting MAID or for an explanation of lack of follow-up after the initial request. In addition, TOH charts do not contain a complete record of the regional palliative care resources used in patients' care and there is a lack of documentation regarding the level of palliative care before a MAID request. This study looks at the MAID process at TOH in its first year of implementation, during which time charting and reporting requirements have changed to be more stringent. As a result, data points are missing in this analysis, as they were not documented in the electronic medical records or written MAID assessments. Finally, this study is from a single academic health centre; therefore, its unique institutional culture might limit generalizability.

## Conclusion

Despite its proven benefits in alleviating pain and suffering,[13] this study found that there is still a gap in the provision of palliative care among the patients who requested MAID. Although palliative care should be offered when MAID is requested, there are no guidelines or legislation mandating a referral to palliative care, and no guidance on when, how, and where such palliative care should be delivered.[14] For the MAID process at TOH, it is an expectation that the most responsible physician

has provided information about palliative care to the patient and family, but that information is not standardized or well documented. Multicentre studies over a longer follow-up period and a larger sample size are needed to further explore the observations in this study and determine the role of palliative care and its effect on patients requesting MAID.

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**Contributors**
All authors contributed to the concept and design of this study; data gathering, analysis, and interpretations; and preparing the manuscript for submission.

**Competing interests**
None declared

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