1-2-3 Project: A Quality Improvement Initiative to Normalize and Systematize Palliative Care for All Patients With Cancer in the Outpatient Clinic Setting

Anjali V. Desai, Virginia M. Klimek, Kimberly Chow, Andrew S. Epstein, Camila Bernal, Kelly Anderson, Molly Okpako, Robin Rawlins-Duell, Dana Kramer, Danielle Romano, Jessica I. Goldberg, and Judith E. Nelson

QUESTION ASKED: Is it feasible to normalize and systematize palliative care from diagnosis for patients at any stage of cancer through integration of primary (ie, non-specialist) and specialist palliative care in a cancer center’s high-volume outpatient clinics?

SUMMARY ANSWER: Pilot experience suggests that a structured and scheduled approach for palliative care assessment and clinical response in oncology clinics is feasible from the time of cancer diagnosis, regardless of stage or prognosis. This project identified important and actionable palliative care needs, relying primarily on oncology teams to respond to these needs, while enhancing access to palliative care specialist input.

WHAT WE DID: We developed a quality improvement initiative introducing palliative care to all newly diagnosed patients with cancer as a collaborative effort between oncology teams and palliative care specialists and piloted the project in two medical oncology clinics (for patients with myelodysplastic syndrome and GI cancer, respectively) to establish feasibility.

WHAT WE FOUND: All eligible patients enrolled and continued participation over time without disruption of clinic workflow or decreases in visit volume. Brief, visit-based assessments identified important, actionable palliative care needs (Fig), and oncology teams embraced their primary palliative care role with coaching from the palliative care specialists.

BIAS, CONFOUNDING FACTOR(S): Our pilot was limited to 58 patients in two oncology clinics in a single dedicated cancer center. Although we have shown feasibility in this sample, which included patients with hematologic or solid tumor malignancies, generalizability and scalability will require additional study. A comparative study design involving a larger sample across a more diverse group of sites is also needed for rigorous evaluation of the impact of the intervention on outcomes of importance to patients, families, clinicians, and institutions.

REAL-LIFE IMPLICATIONS: Although strong evidence supports early integration of palliative care within oncologic care, previous literature has focused on patients with advanced cancer receiving specialist palliative care. The National Comprehensive Cancer Network’s guidelines call for palliative care from the beginning for all patients with cancer and for institutional development of processes for this purpose. In this article, we demonstrate the feasibility of our innovative, visit-based outpatient clinic initiative for newly diagnosed patients at any stage, emphasizing primary palliative care by oncology teams, with enhanced access to palliative care specialists. This program can serve as a model for other centers by expanding the optimal scope of palliative care within oncology and improving the quality of care that our patients with cancer receive throughout their illness trajectory.

Fig. Visit-based, systematic, self-reported assessments in the 1-2-3 project.
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Abstract

Background

Prior work to integrate early palliative care in oncology has focused on patients with advanced cancer and primarily on palliative care consultation. We developed this outpatient clinic initiative for newly diagnosed patients at any stage, emphasizing primary (nonspecialist) palliative care by oncology teams, with enhanced access to palliative care specialists.

Methods

We piloted the project in two medical oncology specialty clinics (for patients with myelodysplastic syndrome and GI cancer, respectively) to establish feasibility. On a visit-based schedule, patients systematically reported symptoms, information/decision-making preferences, and illness understanding. They also participated in discussions of their core values with their oncology nurse. Oncology teams were first responders to palliative care needs, whereas specialists were available for clinician support and direct patient consultation.

Results

All 58 eligible patients were enrolled. In both clinics, patient self-reports documented a heavy symptom burden. Information/decision-making preferences and illness understanding levels varied across patients. Patients prepared new advance directives. Oncology nurses documented discussions of core values. Requests for palliative care consultation decreased over time as oncology teams embraced their primary palliative care role with coaching from the specialists. Clinic workflow and patient volume were maintained.

Conclusion

Our pilot experience suggests that in outpatient oncology clinics, a structured, scheduled, and systematic approach is feasible to deliver palliative care to newly diagnosed patients with cancer at any stage and throughout their illness trajectory. This novel approach identified important, actionable palliative care needs, relying primarily on oncology teams to respond to these needs, while enhancing access to palliative care specialist input. Expansion to additional clinics will allow evaluation of scalability and generalizability, along with measurement of a broader range of important outcomes.

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INTRODUCTION
Early integration of palliative care with oncologic care improves patients’ symptoms, quality of life, satisfaction with care, and illness understanding, and can increase survival. It also reduces patients’ needs for emergency and intensive care, while increasing the use of hospice for those at the end of life. By promoting treatment that is concordant with the patient’s values and goals, palliative care also reduces costs.

Accordingly, the National Comprehensive Cancer Network’s guidelines incorporate palliative care as an indispensible component of comprehensive cancer care, regardless of stage, prognosis, or treatment phase: “All cancer patients should be screened for palliative care needs at their initial visit, at appropriate intervals, and as clinically indicated.” These guidelines call on institutions to “develop processes for integrating palliative care into cancer care, both as part of usual oncology care and for patients with specialty palliative care needs.”

We developed and piloted a quality improvement initiative introducing palliative care to all newly diagnosed patients with cancer as a collaborative effort between oncology teams and palliative care specialists. We focused on primary (non-specialist) palliative care provided by the oncology teams (particularly by nursing professionals) within the outpatient setting. Our goal was to normalize and systematize palliative care as part of comprehensive cancer care in our institution, which is recognized as an international leader in oncology. We conducted our pilot evaluation of feasibility and perceived impact in two busy oncology clinics.

METHODS

Genesis
Decades before the rapid growth of palliative care programs in the United States, Memorial Sloan Kettering Cancer Center (MSK) established the first designated pain service in a cancer setting, which evolved into an interprofessional palliative care program. In 2015, the institution held a day-long retreat to envision the future of palliative care at MSK. This retreat was sponsored by the Physician-in-Chief, attended by more than 120 clinical and administrative leaders across MSK, and joined by American Society of Clinical Oncology leadership. Three themes emerged: (1) palliative care should be part of cancer care for all patients throughout their illness; (2) all clinicians are responsible for this care, which should be delivered by oncology teams with ready access to palliative care specialists for patient consultation and clinician support; and (3) clinicians should be supported by well-designed work processes, tools, and training. With input from many institutional stakeholders, these themes were woven into a strategic plan, including the initiative reported here, The 1-2-3 Project to Advance Palliative Care at MSK.

Pilot Implementation
We piloted this program in two MSK medical oncology specialty clinics (treating patients with myelodysplastic syndrome [MDS] or GI cancer, respectively), each staffed by an attending oncologist and an oncology registered nurse. Starting in the MDS clinic (September 2016) and expanding to the GI oncology clinic (May 2017), the palliative care assessments shown in Figure 1 were added incrementally after pretesting them individually. Pilot data collection continued through May 2018.

Eligibility
Patients were screened for participation through weekly review of preclinic schedules. Eligibility encompassed all newly diagnosed adult (≥ 21 years old) patients establishing care in the designated clinics. Participants had to have a diagnosis of MDS or GI cancer made or confirmed at MSK and return for at least one follow-up visit after the initial one (but not more than two visits before project participation), thereby focusing the effort on new patients planning to continue care at our institution. We included patients’ caregivers (either legally designated as the surrogate or identified by the patient as a participant in health care decision making and/or caregiving). We excluded patients and caregivers lacking sufficient English proficiency to participate in assessments and interviews.

Institutional Review
The MSK Institutional Review Board approved a waiver of informed consent for patients, caregivers, and staff, because the project was intended as a quality improvement initiative and presented no more than minimal risk to participants.

Visit-Based, Systematic Assessment of Palliative Care Needs
At visit 1 (ie, the first follow-up visit for newly diagnosed patients), the oncology physician and nurse explained that patients would receive palliative care as part of their cancer care, including attention to symptoms, exchange of information, and support for goal-concordant decision making.
A nurse practitioner (NP) specializing in palliative care was introduced as a resource for the team, patient, and caregivers. Patients responded to brief assessments in key palliative care domains (Fig 1) using a clinic tablet computer. These responses were immediately available to clinicians and included in the electronic medical record (EMR).

**Patient symptoms**
Using a modified version of the Edmonton Symptom Assessment Scale\(^{17,18}\) at every clinic visit, patients rated 10 physical, psychological, and spiritual symptoms using a 0 to 10 numeric rating scale (Appendix Fig A1, online only).

**Information and decision-making preferences**
At visit 1, patients were asked to report their preferences for receiving medical information. Patients were also asked who, if anyone, they looked to for help with medical decision making and, if not already done, whether they wanted to designate a health care proxy.

**Illness and treatment understanding**
At visit 2 and quarterly thereafter, patients reported their understanding of the expected course of their illness and intent of their cancer treatment via items drawn from the national Cancer Care Outcomes Research & Surveillance Consortium study.\(^{19}\)

**Core values**
This intervention included a two-part sequence of discussions of the patient’s core values led by the oncology nurse at visits 3 (part I) and 4 (part II). These discussions were structured around questions drawn from prior published research by our group and others\(^{20-23}\) that explored the patient’s sense of personhood and core values, and subsequently offered an opportunity for the patient to express preferences with respect to specific care goals. The nurse’s written summary of these conversations was discussed with the oncologist and verified by the patient, after which a copy was given to the patient and entered into the EMR.

**Caregiver assessment**
At visit 4, caregivers rated their own well-being using the American Medical Association’s Caregiver Self-Assessment Questionnaire, as posted on the American Cancer Society’s Web site.\(^{24}\)

**Response**
To respond to patients’ and caregivers’ needs, our project integrated primary and specialist palliative care through a Care, Coach, Consult model. Primary palliative care was provided by the oncology team (ie, attending physician and nurse), with the nurse as the first responder. An NP specializing in palliative care was identified as a coach who served multiple oncology teams and could be contacted as needed for advice on symptom management, communication, or care planning approaches (Appendix, online only). This NP could also be called on (through a referral requested electronically by the oncology team) to provide direct consultative care to patients (Appendix).

The primary palliative care was further supported by targeted training. Guidance for initial symptom care in the

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![Table](image)
MSK ambulatory setting was manualized for the nurses’ reference and periodically updated. In addition, nurses were given helpful language and algorithmic approaches in the form of ready responses and action pathways for selected situations, for example, when a patient expressed severe emotional distress (Appendix Fig A2, online only). Ready responses encompassed a range of behavioral, integrative, and pharmacologic strategies. Suggestions for referral to interdisciplinary colleagues in social work, psychiatry, and chaplaincy were incorporated into action pathways (Appendix Fig A2).

Evaluation
Pilot evaluation focused on feasibility as measured by patients’ continuation on the protocol, time for patient completion and clinician review of the assessments, completeness of assessments, impact on clinic volume, and involvement of palliative care specialists. We summarized responses to assessments using measures of central tendency and determined the frequency of health care proxy designation.

RESULTS
Of 346 patients visiting for the first time during the period of pilot observation in the designated clinics, 58 met criteria for participation, and all were enrolled in our project. As shown in Figure 2, the most common reasons for patient exclusion included having a single visit only (eg, for a second opinion), without establishing ongoing care (n = 163); having a diagnosis other than MDS or GI cancer (n = 107); or lacking English proficiency (n = 17). Table 1 lists baseline characteristics of patients and their participation in the program.

For the patient-reported assessments, the median time required for patient completion and clinician review was 5 minutes or less. Discussions of patients’ values took approximately 15 minutes each. Caregivers completed assessments in less than 10 minutes. Neither the average duration of oncology clinic visits nor the average number of visits per clinic (approximately 20 per day in the MDS and GI oncology clinics, respectively) changed after introduction of our project. No patient refused to complete an assessment, nor did any decline to discuss their values.

We collected 413 symptom assessments during the pilot period (Appendix Fig A1). Symptoms most commonly reported at the moderate or severe level were fatigue (49.8%), worry about the future (48.4%), trouble sleeping (40.9%), and overall distress (40.0%). Patients in the MDS clinic and GI oncology clinic had similar symptom profiles.

Patients’ preferences for information varied. Although 77.4% of patients stated they would prefer detailed information, 22.6% preferred only a broad overview. Of patients who had not appointed a health care proxy before (35 of 58), 77.1% did so during project participation.

Fewer than half of patients (39.3%) thought that their disease-directed treatment was somewhat or very likely to cure their cancer. However, most (75.4%) believed that this treatment was at least somewhat likely to help them live longer.

A total of 58 values discussions (part I, 32; part II, 26) were completed. Qualitative analysis of these discussions is ongoing and will be the subject of a future report.

We collected self-assessments from 32 caregivers of 30 patients. Of these, 68.8% (22 of 32) met criteria for high distress. Caregivers reporting high distress were offered referrals to the clinic’s social worker for initial evaluation, with follow-up as needed through the Department of Social Work.

Consultation by a palliative care NP was formally requested for 15.5% of patients (9 of 58). Most of these referrals were made during the early months of the pilot, as were more frequent requests for coaching (which were harder to quantify because they occurred intermittently throughout the clinic day).

Oncology teams participating in the pilot embraced their role as providers of primary palliative care. As one oncology
Table 1. Characteristics of Patients and Their Participation in the 1-2-3 Program

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>MDS (n = 34)</th>
<th>GI Cancer (n = 24)</th>
<th>All Patients (N = 58)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Median age (range), years</strong></td>
<td>69.5 (34-88)</td>
<td>70.5 (37-85)</td>
<td>70.0 (34-88)</td>
</tr>
<tr>
<td>Male, No. (%)</td>
<td>19</td>
<td>14</td>
<td>33 (57.9)</td>
</tr>
<tr>
<td>Race, No. (%)</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>White</td>
<td>30</td>
<td>17</td>
<td>47 (81.0)</td>
</tr>
<tr>
<td>Black</td>
<td>1</td>
<td>3</td>
<td>4 (6.9)</td>
</tr>
<tr>
<td>Asian</td>
<td>1</td>
<td>3</td>
<td>4 (6.9)</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1</td>
<td>2 (3.4)</td>
</tr>
<tr>
<td>Not reported</td>
<td>1</td>
<td>0</td>
<td>1 (1.7)</td>
</tr>
<tr>
<td>Completed visits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median No. of visits (range)</td>
<td>7 (1-37)</td>
<td>7 (1-24)</td>
<td>7 (1-37)</td>
</tr>
<tr>
<td>% of patients completing, No. of visits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>20.7</td>
<td>17.2</td>
<td>37.9</td>
</tr>
<tr>
<td>6-10</td>
<td>17.2</td>
<td>13.8</td>
<td>31.0</td>
</tr>
<tr>
<td>11-15</td>
<td>10.3</td>
<td>8.6</td>
<td>19.0</td>
</tr>
<tr>
<td>16-20</td>
<td>3.4</td>
<td>0.0</td>
<td>3.4</td>
</tr>
<tr>
<td>≥ 21</td>
<td>6.9</td>
<td>1.7</td>
<td>8.6</td>
</tr>
<tr>
<td>Completed assessments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symptoms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median No. of assessments (range)</td>
<td>5 (1-25)</td>
<td>6 (0-23)</td>
<td>5 (0-25)</td>
</tr>
<tr>
<td>% of patients completing assessments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5</td>
<td>31.0</td>
<td>20.7</td>
<td>51.7</td>
</tr>
<tr>
<td>6-10</td>
<td>12.1</td>
<td>15.5</td>
<td>27.6</td>
</tr>
<tr>
<td>11-15</td>
<td>5.2</td>
<td>3.4</td>
<td>8.6</td>
</tr>
<tr>
<td>16-20</td>
<td>5.2</td>
<td>0.0</td>
<td>5.2</td>
</tr>
<tr>
<td>≥ 21</td>
<td>5.2</td>
<td>1.7</td>
<td>6.9</td>
</tr>
<tr>
<td>Median time spent (range), min*</td>
<td>5 (1-35†)</td>
<td>4 (1-10)</td>
<td>5 (1-35†)</td>
</tr>
<tr>
<td>Information preferences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of patients completing$</td>
<td>96.7</td>
<td>100</td>
<td>98.1</td>
</tr>
<tr>
<td>Median time spent (range), min*</td>
<td>3 (1-10)</td>
<td>3 (2-9)</td>
<td>3 (1-10)</td>
</tr>
<tr>
<td>Illness/treatment understanding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of patients completing§</td>
<td>91.3</td>
<td>94.4</td>
<td>92.7</td>
</tr>
<tr>
<td>Median time spent (range), min*</td>
<td>3 (2-20)</td>
<td>2 (1-15)</td>
<td>3 (1-20)</td>
</tr>
<tr>
<td>Caregiver self-assessment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% caregivers completing¶</td>
<td>94.7</td>
<td>100</td>
<td>96.9</td>
</tr>
<tr>
<td>Core values</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of patients completing%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First values discussion</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Both values discussions</td>
<td>66.7</td>
<td>94.1</td>
<td>81.2</td>
</tr>
</tbody>
</table>

Abbreviation: MDS, myelodysplastic syndrome.

*$The nurse recorded the time spent completing the assessment; these numbers were verified using the digital time stamp of the electronic assessment.
†A single patient at the high end of the range was discussing symptoms with the oncology nurse while completing the assessment.
‡n = 53 (assessment was phased in after start of project).
§n = 41 (assessment was phased in after start of project).
¶n = 32 caregivers for 30 patients (assessment was phased in after start of project and not all patients were accompanied by caregivers; one caregiver declined to complete the assessment).
¶¶n = 32 (15 MDS, 17 GI cancer). Values component of protocol (sequence of two discussions) was phased in after start of project. No patient declined to participate in values discussions; those not completing the second values discussion either died before (n = 2) or had not yet returned for (n = 4) the visit when the discussion was to occur.
nurse described, “Being part of this program has really elevated my nursing practice to its fullest. It has not only pushed my boundaries, but it has also expanded them and allowed me to continue to grow. This is really the heart of nursing. I think it's really hit home for the patients that I’m there to advocate for them.”

DISCUSSION

Although strong evidence supports early integration of palliative care within oncologic care, prior studies have focused on patients with advanced cancer who were receiving specialist palliative care. The project aimed to extend this approach to all patients with cancer, recognizing that they may have needs for symptom management and other support from the time of diagnosis, regardless of stage, prognosis, or treatment phase. We also hypothesized that integrated palliative care for all patients with cancer starting at diagnosis would help patients, families, and clinicians understand that palliative care is not synonymous with end-of-life care but, rather, applicable and valuable along with even the most sophisticated cancer-directed treatments. The project spotlighted, structured, and supported the role of the oncology team, especially the nurse, in providing high-quality primary palliative care while enhancing access to palliative care specialists. Pilot implementation and evaluation as described here provide evidence of the feasibility of this novel approach. Our data also suggest that systematic assessment for all patients with cancer from diagnosis identifies important and actionable palliative care needs.

Results of the serial symptom assessments we collected are consistent with other evidence that symptom burden can be significant in the early phases of cancer care. Previous research conducted at MSK showed that in patients with advanced solid tumor malignancies receiving chemotherapy, systematic assessment alone not only identified actionable symptoms but was also associated with improvement in quality of life, better tolerance with longer duration of chemotherapy, reduced need for emergency department care, and longer survival compared with usual care. Evidence suggests that inclusion of symptom management algorithms can extend these benefits and decrease hospitalizations. The 1-2-3 Project translates this evidence into routine clinical practice, standardizing assessment for and structuring response to physical, psychological, and spiritual distress at every clinic visit beginning with the first.

Previous literature describes unique barriers to engagement of palliative care specialists in the care of patients with hematologic malignancies, which may explain delayed referrals for these patients during disease-directed treatment, as well as lower hospice utilization at the end of life. However, the 1-2-3 Project was quickly embraced by the oncology staff within the MDS clinic, as well as by physicians and nurses specializing in bone marrow transplantation to whom some of the enrolled MDS patients were referred. We attribute the strength and breadth of support for the project to several factors, including early and continuing engagement of key stakeholders in its development; emphasis on the role of the oncology team and particularly nursing professionals in providing primary palliative care; introduction of palliative care as a routine, integral component of cancer care; and attention to system design, work process, and efficient tools.

Rapid growth over the past two decades has increased the availability of palliative care specialists from 25% to 75% in US hospitals with more than 50 beds. However, access to such specialists in the outpatient setting remains limited and in all care settings, workforce shortages and other factors constrain the role of these specialists in meeting the palliative care needs of patients with serious illness. There is growing recognition that high-quality palliative care must be delivered at a primary level by all clinicians caring for patients and families facing cancer. Per the National Comprehensive Cancer Network, “Palliative care should be initiated by the primary oncology team and then augmented by collaboration with an interdisciplinary team of palliative care experts.” An ongoing study is testing a nurse-led primary palliative care intervention in outpatient oncology, but is limited to patients with advanced solid tumor malignancies and does not structure collaboration with palliative care specialists. By comparison, the 1-2-3 Project includes patients at all stages with either hematologic or solid tumor malignancies and implements a model combining primary and specialist palliative care. For centers without on-site specialists, telemedicine might provide a form of communication between oncology teams and palliative care specialists, as well as between specialists and patients.

In our center, the volume of outpatient visits is high and time is of the essence, requiring optimal efficiency to ensure high-quality care while maintaining workflow. Although our project introduced new assessments, these were brief, and digital entry of responses by patients (usually while waiting to see clinicians) made them immediately available to clinicians,
with automatic documentation in the EMR. Digital displays can present information such as symptom reports in the context of prior reports by the patient, highlighting trends and deviations from typical patterns. Clinicians in the pilot found that this information enabled them to identify palliative care needs in a more focused fashion, which facilitated more efficient care. Visit volume did not change after project implementation. Routine, proactive assessment of palliative care needs can provide timely information with opportunities for response that might avoid the need for urgent care after delayed recognition. Clear documentation of these assessments in the EMR also allows all members of the health care team to understand the patient’s needs and respond appropriately, with continuity across providers and care settings.

Oncology nurses in pilot clinics implemented their project roles successfully and reported that these roles formalized, normalized, and systematized their work in a new, valuable, and professionally gratifying way. Educational support for the project focused on preparing nurses to respond to patients’ expressions of strong emotions, which not only cause significant patient distress but also interfere with the ability of patients to absorb and process information about their illness and treatment that is important for medical decision making. This training was accomplished in less than 2 hours. On the basis of our pilot experience, the Department of Nursing is developing a program that will prepare all nurses to implement and disseminate the 1-2-3 Project throughout MSK oncology clinics.

To date, the 1-2-3 Project has been tested only in two clinics at MSK, which is a single, dedicated cancer center. Although diverse, the sample of patients in these clinics is small, and generalizability of our findings to other clinics or other institutions is not yet established. Intervals between assessments were determined by the frequency of visits to the clinic, which varied. Although visit frequency is likely related to the intensity or pace of the underlying illness, therefore potentially serving as a relevant indicator of the need for assessment, optimal timing of assessments is not yet known, nor have we established the ideal level of palliative care specialist staffing to support primary palliative care by oncology teams in this combined model. Specialist staffing needs could vary according to multiple factors at the level of the patient, disease, and clinician. At the time of this pilot, MSK did not have a designated spiritual care provider for the outpatient clinics, but this care will be more accessible going forward. Assessment and response to palliative needs outside the clinic through modalities such as telemedicine were not included in our pilot but may significantly enhance our approach. We have not tested the applicability of our current model to the inpatient setting, where the symptom, communication, and care planning needs may be different. Finally, a larger patient sample and comparative design will be needed to rigorously evaluate the impact on outcomes of interest at the level of patient, caregiver, clinician, process, and health care utilization.

In summary, the 1-2-3 Project aimed to normalize, operationalize, systematize, and thereby improve palliative care in the outpatient setting as part of comprehensive cancer care for all patients, regardless of disease, stage, or prognosis, beginning at diagnosis. Using a novel, structured, visit-based approach, our project identified important and actionable palliative care needs. The Care, Coach, Consult model integrated primary and specialist palliative care to meet these needs. This program can serve as a model for other centers by expanding the optimal scope of palliative care within oncology and improving the quality of care that our patients with cancer receive throughout their illness trajectory.

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Disclosures provided by the authors are available with this article at jop.ascopubs.org.

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Administrative support: Judith E. Nelson
Provision of study materials or patients: Andrew S. Epstein, Robin Rawlins-Duell, Judith E. Nelson
Collection and assembly of data: Anjali V. Desai, Virginia M. Klimek, Kimberly Chow, Andrew S. Epstein, Camila Bernal, Kelley Anderson, Molly Okpako, Robin Rawlins-Duell, Dana Kramer, Danielle Romano, Judith E. Nelson
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Manuscript writing: All authors
Final approval of manuscript: All authors
Accountable for all aspects of the work: All authors

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References

47. Kim YP, Saldivar R, Sidlow R: Development of a telemedicine palliative care program in a cancer center. Presented at the American Academy of Hospice and Palliative Medicine Annual Assembly, Boston, MA, March 14-17, 2018
AUTHORS’ DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

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Appendix

In the 1-2-3 Program, oncology nurses assess patients’ palliative care needs and are the first responders to these needs, with support from program tools and designated palliative care specialists when necessary. The Care, Coach, Consult approach of the program allows the oncology nurse to reach out informally to a palliative care nurse practitioner for coaching (ie, advice/guidance) in providing primary palliative care to patients. The palliative care specialist can also be engaged for formal consultation on patients.

As an example of a request for coaching (advice/guidance for primary palliative care) from the palliative care nurse practitioner, an oncology nurse might ask about the starting dose of an opioid for an opiate-naïve patient with moderate pain not relieved by nonopioid therapy. However, a formal, direct patient consultation might be requested for a patient with persistent pain after rotation through multiple opioids associated with adverse effects.

In addition, oncology nurses are provided with algorithmic action pathways to help guide responses in specific situations. Examples of action pathways for responding to patient reports of psychological symptoms at high levels of severity and to caregiver self-reports of high distress are shown in Appendix Figure A2.

![Severity of symptoms as assessed from time of diagnosis (413 assessments from 58 patients).](image)

**Fig A1.** Severity of symptoms as assessed from time of diagnosis (413 assessments from 58 patients).
Worst level of depression score ≥ 8

Assess whether the patient has suicidal ideation

If yes, immediately refer to psychiatry
If no, offer psychiatry referral and/or palliative NP referral

Worst level of worrying about the future score ≥ 8

Offer palliative NP referral. Consider psychiatry or SW referral.

Caregiver CSAQ high distress score

Refer caregiver to SW

Make additional caregiver referrals based on SW’s recommendations

Fig A2. Action pathway examples. CSAQ, Caregiver Self-Assessment Questionnaire; NP, nurse practitioner; SW, social worker.