PATIENT-CENTERED ONCOLOGY PAYMENT

Payment Reform to Support Higher Quality, More Affordable Cancer Care

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PATIENT-CENTERED ONCOLOGY PAYMENT (PCOP) Payment Reform to Support Higher Quality, More Affordable Cancer Care

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PATIENT-CENTERED ONCOLOGY PAYMENT EXECUTIVE SUMMARY

There is a critical need to control the costs of cancer care in the United States, but this must be done in a way that preserves and improves the ability of patients to obtain high-quality oncology services.

The American Society of Clinical Oncology (ASCO) developed Patient-Centered Oncology Payment in order to enable all oncology practices to deliver higher quality care at lower cost. Patient-Centered Oncology Payment (PCOP) would improve payment for oncology practices in two key ways:

- **Higher, More Flexible Payment to Support Patient Care.** Oncology practices would receive additional payments that are *sufficient* to enable the delivery of high-quality services that cancer patients need, and payments would be made in a way that give practices more *flexibility* than they have today to tailor services to the unique needs of individual patients.
- Accountability for Delivering High-Quality, Appropriate Care. Oncology practices would take accountability for delivering high-quality care to patients and families, including *following evidence-based appropriate use criteria* for drugs, laboratory tests, and imaging, *helping patients avoid and manage complications of treatment* that are serious enough to require emergency department visits or hospitalizations, and *providing the support patients need at end-of-life*.

Four New Flexible Payments for Oncology Practices

Under Patient-Centered Oncology Payment, an oncology practice would be able to bill payers for four new payments:

- 1. New Patient Treatment Planning (a \$750 payment for each patient);
- 2. Care Management During Treatment (a \$200 payment each month for each patient);
- 3. Care Management During Active Monitoring (a \$50 payment each month for each patient during treatment holidays and for up to six months following the end of treatment); and
- 4. Participation in Clinical Trials (a \$100 per month payment for each patient while treatment is underway and for six months afterward for trials in which practice support is not available).

In addition to these four new payments, oncology practices would continue to be paid as they are today for Evaluation & Management services, infusions of chemotherapy, advanced care planning, testing and imaging, and other procedures and services the patient receives that the practice currently can bill to the payer, and practices would continue to be paid as they are today for drugs administered or provided to patients in the practice.

Accountability for Delivering High-Quality, Evidence-Based Cancer Care

In return for receiving the new payments under PCOP, the oncology practice would take accountability for providing high-quality, evidence-based care in four ways:

- 1. Avoiding emergency department visits and hospital admissions for complications of cancer treatment;
- 2. Following evidence-based guidelines for the appropriate use of drugs, laboratory testing, and imaging studies, and using lower-cost drugs, tests, and imaging where evidence shows they are equivalent to higher-cost treatments and tests;
- 3. Following evidence-based guidelines for high quality care near the end of a patient's life;
- 4. Providing care consistent with standards of quality defined by ASCO.

Benefits of PCOP for Patients, Payers, and Oncology Practices

Benefits for Patients: Patients would benefit from oncology practices having sufficient resources to ensure accurate diagnoses and identify the most appropriate treatment for the patient's disease, to provide patients and their families with adequate education and support services, to rapidly respond when the patient is experiencing problems during their treatment, and to generally deliver the highest quality treatment and services. Patients would also benefit financially by being less likely to have expensive visits to the emergency department or expensive hospital admissions, and by not having to pay for unnecessary drugs and tests or unnecessarily expensive tests and medications.

Benefits for Oncology Practices: The new payments would represent a nearly 50% increase in revenue compared to the current payments received by a typical oncology practice for office visits and infusions, which would help the practice to cover the costs of current services that are not billable, such as non-face-to-face visits with clinicians and services delivered by non-physician staff; enable the practice to provide effective care management services for patients to help them avoid complications of treatment and to manage complications without emergency department visits and hospital admissions; and offset the practice's costs for implementing appropriate use criteria and for measuring and reporting on performance on these criteria and other quality measures.

Benefits for Payers: Payers would experience significant savings by enabling practices to maintain low rates of avoidable ED visits and hospitalizations, ensure appropriate use of expensive drugs, laboratory tests, and imaging studies, and provide high quality end-of-life treatment. These savings are estimated to more than offset the additional payments made to oncology practices; conservative estimates indicate that even with the higher payments to oncology practices, payers would likely see a net reduction of at least 4% in total spending if all practices participated in PCOP payment.

Advantages Compared to Shared Savings Programs: Under PCOP, high-quality oncology practices would receive sufficient payment to deliver appropriate care, in contrast to shared savings models where payments to practices are dependent on reducing other types of spending and where practices could be financially penalized for using effective but expensive new treatments. Payers and patients would know that oncology practices would be specifically focusing on those aspects of spending that can be reduced and using approaches that have been shown to successfully impact spending without harming quality. Payers could also save money by eliminating prior authorization, pathways, and care management programs since oncology practices would be carrying out similar functions themselves.

Optional Advanced Versions of PCOP

The basic PCOP system would provide supplemental non-visit-based payments to oncology practices in return for accountability for quality care and appropriate use of key services. Oncology practices and payers could also choose to implement one of two more advanced versions of PCOP:

- Option A (Consolidated Payments for Oncology Practice Services) would replace the existing E&M and infusion payments the practice is receiving with three new consolidated sets of billing codes that would provide oncology practices even more flexibility to determine exactly how to deliver effective services to patients as well as more sufficient resources for those services.
- Option B (Virtual Budgets for Oncology Care) would provide even greater flexibility and accountability by creating virtual monthly budgets that cover not only the services delivered by the oncology practice but one or more other categories of services, such as hospital admissions, laboratory tests, imaging studies, and/or drugs.

I. IMPROVING THE QUALITY AND AFFORDABILITY OF CANCER CARE

A. Opportunities to Improve Quality and Reduce Spending

In many ways, the current methods of delivering and paying for oncology care in the United States are not working well for either patients, payers, or oncology practices:

- Cancer care is becoming increasingly unaffordable for patients;
- Cancer care is a major contributor to the growing costs of healthcare for businesses, commercial health plans, state Medicaid agencies, and the Medicare program;
- Financial challenges are making it difficult for many oncology practices to deliver high quality care to patients and families, and a number of community oncology practices have closed.

Fortunately, there are opportunities to both reduce the cost of cancer care and improve the quality of care for patients and families:

- Reducing Avoidable Emergency Department Visits and Hospital Admissions. Many patients receive expensive care in emergency departments and hospitals for complications of cancer treatment that could potentially be avoided through appropriate medications or that could be treated in more desirable ways at lower cost in an oncology practice office. A 2010 study of commercial spending on cancer patients estimated that an average of \$9,050 per patient was being spent on chemotherapy-related emergency room visits and hospital admissions. A 2011 study found that 63% of ED visits among cancer patients resulted in admission to the hospital.
- Appropriately Using Expensive Chemotherapy and Supportive Drugs. Many patients are receiving expensive drugs that increase the costs of care for both patients and payers without providing benefits to the patients. For example, risk-adjusted spending on chemotherapy for Medicare patients in 2012 differed by \$6,985 between oncology practices in the lowest and highest spending quartiles, and over one-third of the variation (\$3,600) stemmed from variation in the use of just two drugs Neulasta (pegfilgrastim) and Avastin (bevacizumab).³ A study of the use of pegfilgrastim at an outpatient oncology clinic found that in approximately half of all cases, the use of the drug for primary prophylaxis was not consistent with published guidelines (including underuse as well as overuse), representing an avoidable cost averaging \$8,093 per patient.⁴ A study of the use of myeloid colony-stimulating factors (CSF) such as pegfilgrastim in lung and cancer patients found that 96% of CSFs were administered in scenarios where CSF therapy is not recommended by evidence-based guidelines.⁵
- Delivering High Quality Care at the End of Patients' Lives. Many patients are receiving expensive treatments shortly before they die that do not extend their lives and/or that significantly worsen their quality of life, and many patients are also hospitalized in their final weeks of life even though palliative or hospice care delivered in their own homes would be both

¹ Fitch K. Pyenson B. *Cancer Patients Receiving Chemotherapy: Opportunities for Better Management*. Milliman. March 30, 2010.

² Mayer DK et al. Why Do Patients With Cancer Visit Emergency Departments? *Journal of Clinical Oncology*, 2011.

³ Clough JD et al. Wide Variation in Payments for Medicare Beneficiary Oncology Services Suggests Room for Practice-Level Improvement. *Health Affairs* 34(4): 601. April 2015.

⁴ Waters GE et al. Comparison of Pegfilgrastim Prescribing Practice to National Guidelines at a University Hospital Outpatient Oncology Clinic. *Journal of Oncology Practice* 9(4):203. July 2013.

⁵ Potosky AL et al. Use of Colony-Stimulating Factors with Chemotherapy: Opportunities for Cost Savings and Improved Outcomes. *Journal of the National Cancer Institute* 103:979-982. June 22, 2011.

preferable for them and less expensive for payers. For example, one study of commercially-insured cancer patients found that among cancer patients who received chemotherapy and died in the hospital, 24% received chemotherapy during their last 14 days of life and an average of \$25,960 was spent during the last 14 days of their lives. Another study of commercially-insured cancer patients found that patients incurred an average of \$74,212 in cancer-related expenses in the six months before death and \$25,260 was spent in the final month of life.

B. Potential Reductions in Spending Through Redesigned Care

Not only does potentially avoidable spending on hospitalizations, drugs, and end-of-life services represent a significant portion of spending on cancer care, a variety of demonstration projects have shown this spending can be reduced by redesigning the way care is delivered. For example:

- Reducing Avoidable Emergency Department Visits and Hospital Admissions. A number of leading oncology practices have demonstrated that they can significantly reduce spending on emergency room visits and hospitalizations for preventable complications through initiatives such as expanded office hours, open access scheduling, 24/7 telephone response to patient problems, proactive outreach to patients, use of integrative medicine modalities, proactive coordination with primary care physicians and subspecialists, and enhanced patient education. For example, an oncology medical home project organized by Consultants in Medical Oncology and Hematology used clinical nurse triage management and enhanced access to care in the oncology practice to reduce total emergency room use by over 50% (from 1.64 visits per chemotherapy patient per year to .81 visits) and reduce total hospital admissions by over 50% (from 1.08 total admissions per chemotherapy patient per year to .53 admissions)⁸.
- Ensuring Appropriate Use of Expensive Chemotherapy and Supportive Drugs. Several demonstration projects have shown that use of treatment guidelines, quality measurement systems, shared decision-making tools, and redesign of care processes can reduce spending on drugs, tests, and imaging as well as reduce avoidable complications and improve the quality of care for patients. For example, in one project involving over 1400 lung cancer patients across the U.S., the use of evidence-based treatment guidelines was found to reduce 12-month average costs for chemotherapy by 37% (\$6,923) and average costs for other medications by 39% (\$2,824); total spending for patient care was reduced by 35% (\$9,695 per patient). In a project involving over 4,700 cancer patients at over 46 sites, drug costs were found to be 13% lower (\$2,440 per patient) at sites adhering to clinical pathways than sites that were not adherent.

For some patients, appropriate use of more expensive drugs may help avoid the kinds of complications that result in expensive emergency department visits and hospital admissions and reduce overall spending. For example, a project that changed the way oncology practices are paid found that spending on drugs increased significantly, but total spending decreased.¹¹

⁶ Fitch K. Pyenson B. Cancer Patients Receiving Chemotherapy: Opportunities for Better Management. Milliman. March 30, 2010.

⁷ Chastek B, et al. Health Care Costs for Patients With Cancer at the End of Life. Journal of Oncology Practice 8(6s):75s. November 2012.

⁸ Sprandio JD, Flounders BP, Tofani S. Data-Driven Transformation to an Oncology Patient-Centered Medical Home. *Journal of Oncology Practice* 9(3):130. May 2013

⁹ Neubauer MA et al. Cost Effectiveness of Evidence-Based Treatment Guidelines for the Treatment of Non-Small-Cell Lung Cancer in the Community Setting. *Journal of Oncology Practice* 6 (1): 12. January 2010.

¹⁰ Kreys ED. Koeller JM. Documenting the Benefits and Cost Savings of a Large Multistate Cancer Pathway Program from a Payer's Perspective. *Journal of Oncology Practice* 2013.

¹¹ Newcomer LN et al. Changing Physician Incentives for Affordable, Quality Cancer Care: Results of an Episode Payment Model. *Journal of Oncology Practice*, 2014.

C. Barriers in the Current System of Paying for Cancer Care

A key reason these opportunities for savings are not being realized outside of demonstration projects is the barriers created by the current system of paying oncology practices. The services needed to reduce the avoidable spending are either not supported at all by the current payment system or current payments are inadequate to support the costs of these services. There are several key areas where current payment systems do not support higher quality, lower cost oncology care:

- Insufficient Payment for Diagnosis and Treatment Planning. One of the most important time periods in oncology care is when the patient's diagnosis is first being determined, the treatment options are being identified, the oncologist and patient are determining which treatment option, if any, will be pursued, and the patient is preparing for the psychological and financial challenges of managing both their disease and the chosen treatment. Furthermore, this initial diagnosis and treatment planning has become exponentially more complicated with the advent of molecular diagnostics and molecularly-targeted therapy in recent years, requiring significant time for literature review and consultation with pathologists and/or molecular diagnostics laboratories. If adequate time is not spent to ensure that appropriate tests have been performed accurately, that the most current evidence is used to determine the appropriate treatments, and that patients understand the benefits, risks, and costs of their treatment, decisions may be made that are bad for patients and costly for payers. Moreover, once treatment is chosen, most patients and their families need extensive education and assistance in preparing for the challenges they will face during and after the treatment. However, Medicare and most health insurance plans will not pay for most of this time and assistance; payments are only made for the time physicians spend in face-to-face visits with patients.
- Lack of Payment for Care Management. Patients receiving treatment for cancer are at risk of experiencing serious complications, and if those complications are not identified and addressed as early and as quickly as possible, the patients may require emergency care or hospitalization. Patients can also mitigate or avoid many complications if they have an adequate understanding of preventive approaches and how to implement them. The most appropriate and cost-effective approach to patient education, rapid evaluation of potential signs of complications, and rapid response to serious complications is for oncology practices to have adequate nursing and support staff to spend time providing continuous education to patients, to proactively call them to ensure they are adhering to their treatment plans, to evaluate symptoms when they first appear, and to rapidly provide treatment for potentially serious complications. However, there is currently no payment for these services from Medicare or most health insurance plans.
- Insufficient Payment for Management of Oral Anti-Cancer Therapy. A growing number of oncology patients are receiving oral anti-cancer therapy instead of infused or injected chemotherapy. Since such patients don't need to come to the office to receive their medications, the oncology practice has fewer opportunities than for patients receiving infused drugs to verify that the patient is receiving the right doses of drugs at the right times, and practice staff will not see the patient in person as frequently to see how they are doing and intervene early if there are any problems. Studies have shown that patients on oral anti-cancer therapy both underuse and overuse medications, particularly with regimens that have complex schedules. Appropriate care for patients taking oral anti-cancer therapy requires nurses or other practice staff to proactively contact patients to ensure they are taking their medications appropriately and to quickly respond when patients have questions about how to deal with missed dosages, side effects, potential drug interactions, etc. However, there is currently no payment for these services from Medicare or most health plans. Although the practice can be

paid if the patient comes to the office for a face-to-face visit with a physician or other clinician, this does not occur frequently enough to ensure that patients are managing their medications appropriately and it is both inconvenient and expensive for patients to make visits to an oncology practice if they are not necessary.

- Insufficient Payment for Supporting Patients in End of Life Care. Decisions about whether and when to stop treatment, to begin hospice care, and to prepare for the final weeks of life are difficult for patients and families, and they need considerable time and support from physicians and oncology practice staff. Moreover, after patients decide to stop treatment, they need continued support from oncology practice staff as well as their physician. Most of this time and assistance is not supported by Medicare and most health insurance plans.
- Insufficient Payment for Participation in Clinical Trials. The evidence needed to help oncologists and patients determine whether particular drugs and tests make a difference in outcomes comes from well-designed clinical trials. However, participation in a clinical trial requires a considerable investment of time and resources by an oncology practice. Trials sponsored by pharmaceutical companies or funded through research studies may provide funding to cover these costs, but for other types of research, there is no payment from Medicare or most health insurance plans to support these added costs, even though the information that is derived from the trials could result in better outcomes for patients and lower costs for payers.

D. The Need for Payment Reform in Cancer Care

The projects described in Section I-B demonstrate that there is an opportunity for a win-win-win for patients, payers, and oncology practices if the barriers described in Section I-C can be overcome. Appropriate reforms in the way oncology practices are paid could enable patients to receive more and better services, to reduce costs for both payers and patients without harming the quality of patient care, and to make oncology practices more financially sustainable and better able to deliver high quality, affordable cancer care in their communities to the growing number of patients who need it.

Although ASCO has created a number of programs designed to help oncology practices measure and improve their performance, many practices do not have adequate resources to make the kinds of changes in care that could significantly improve care delivery, and many cannot devote as much time as they would like to quality improvement efforts because of the financial challenges they face in sustaining their existing services.

Patient-Centered Oncology Payment (PCOP) was developed by the American Society of Clinical Oncology to overcome the barriers in the current payment system so that oncology practices can receive the resources they need to deliver the most appropriate care to patients with lower overall spending. ASCO believes that the significant investments it has made in recent years to define quality measures and appropriate use criteria and to create programs designed to assist practices in quality improvement efforts will enable practices of all sizes and types to successfully implement the payments and accountability measures defined in PCOP and to use the additional resources under PCOP to rapidly make significant improvements in the quality and affordability of cancer care.

II. PCOP: PAYMENT FOR HIGH-VALUE CANCER CARE

Patient-Centered Oncology Payment (PCOP) is designed to change payment for oncology practices in two key ways in order to enable oncology practices to deliver higher quality care at lower cost:

- **Higher, More Flexible Payment.** Oncology practices would receive larger payments than today in order to provide *sufficient* resources to deliver high-quality services that cancer patients and their families need, and payments would be made in a way that give practices more *flexibility* than they have today to tailor services to the unique needs of individual patients.
- Accountability for Delivering High-Quality, Appropriate Care. Oncology practices would take accountability for delivering high-quality care to patients and families, including *following evidence-based appropriate use criteria* for drugs, laboratory tests, and imaging, *helping patients avoid and manage complications of treatment* that are serious enough to require emergency department visits or hospitalizations, and *providing the support patients need at end-of-life*.

The basic Patient-Centered Oncology Payment system is described in this section. Two more advanced PCOP options (Option A and Option B) are described in Section III.

A. Four Additional, Flexible Payments for Oncology Practices

Under PCOP, an oncology practice would be able to bill payers for four new payments. (The rationales for the payment amounts are described in Appendix A.)

1. Payment for New Patient Treatment Planning

The oncology practice would be able to bill payers for a \$750 payment for each new oncology patient who begins treatment or active management with the practice. This would enable the practice to ensure the accuracy of diagnoses, identify appropriate treatment options and help patients choose the most appropriate treatments, and provide the education and support services that patients need when first diagnosed with cancer. This payment would also finance a portion of the ongoing support services patients need during treatment.

2. Payment for Care Management During Treatment

The oncology practice would be able to bill payers for a \$200 payment for each month in which an oncology patient is receiving parenteral or oral anti-cancer treatment prescribed by the practice. This would enable the practice to deliver effective care management services for all patients and to deliver effective management of oral anti-cancer therapy. This payment would also be made for patients who are in hospice if the oncologist is the hospice physician.

3. Payment for Care Management During Active Monitoring

The oncology practice would be able to bill payers for a \$50 per month payment when an oncology patient was not receiving anti-cancer treatment but was being actively monitored by the practice. This would include any months in which treatment was not received *before* a treatment regimen was completed and up to six months *after* the completion of treatment. This would help the practice to provide both effective survivorship care and end-of-life care.

4. Payment for Participation in Clinical Trials

The oncology practice would be able to bill payers for a \$100 payment for each month in which a patient was participating in a clinical trial (for treatment or follow-up) if the trial sponsors do not provide support for practice expenses related to participation in the trial. This would be in addition to the New Patient Treatment Planning and Care Management Payments.

Oncology practices would continue to be paid as they are today for Evaluation & Management services, infusions of chemotherapy, advanced care planning, testing and imaging, and other procedures and services the patient receives that the practice currently can bill to the payer, and practices would continue to be paid as they are today for drugs administered or provided to patients in the practice. The four new payments would supplement these existing payments, not replace them.

B. Accountability for Delivering High-Quality, Evidence-Based Cancer Care

In return for receiving the new payments under PCOP, the oncology practice would take accountability for providing high-quality, evidence-based care in four ways:

- 1. Avoiding emergency department visits and hospital admissions for complications of cancer treatment:
- 2. Following evidence-based guidelines for the appropriate use of drugs, laboratory testing, and imaging studies, and using lower-cost drugs, tests, and imaging where evidence shows they are equivalent;
- 3. Following evidence-based guidelines for high-quality care near the end of a patient's life;
- 4. Providing care consistent with standards of quality defined by ASCO.

1. Avoiding Emergency Department Visits and Hospital Admissions

The oncology practice would use the additional resources from PCOP payments to provide services designed to help its patients avoid complications of treatment such as nausea, dehydration, and infections where possible and to obtain treatment for complications when they occur without having to visit the emergency department or be admitted to the hospital. For example, the practice might provide education to its patients about how to avoid complications, prescribe appropriate medications to avoid or control complications, and respond quickly when patients experience complications. The practice would have the flexibility to use the New Patient Treatment Planning Payment and Care Management Payments in whatever way it felt was best to achieve the best outcomes for its patients.

The oncology practice and the payer would jointly establish mechanisms for measuring the rate at which patients being treated by the practice visit the emergency department and/or are admitted to the hospital and for providing timely, actionable information to the practice on visits and admissions when they occur. These data are typically not directly available to oncology practices without assistance from the payer (Medicare or a commercial health plan).

Expected Performance Level

The oncology practice would be eligible to continue participating in the PCOP program and receiving the full Care Management Payments as long as the total rate of emergency department visits and the total rate of hospital admissions for its patients who are undergoing treatment were below specific target levels established through agreement between the practice and payer. These target rates would be established and adjusted each year based on analyses of the actual rates at which the specific types of cancer patients who are insured by the payer were using the emergency department or being admitted to the hospital at the local and national levels, and target rates could be phased in over a multi-year period in order to allow adequate time for the practice to implement effective preventive and alternative services. For practices with small numbers of patients with a particular payer, it will likely be necessary to measure performance over longer periods of time or to measure performance across all of the practice's patients using information from a state or regional multi-payer claims data system.

If the rates of emergency department visits and hospital admissions for an oncology practice's patients are already low compared to local and national rates, the practice would not be required to *reduce* the current rates in order to participate in PCOP, but would be expected to *maintain* low rates with the resources provided through the PCOP payments.

Adjustments in Payments Based on Performance

If the practice failed to achieve the target rates of emergency department visits per patient and hospital admissions per patient, its monthly Care Management Payments would be reduced by an amount agreed to in advance by the payer and practice. If the ED and hospitalization rates remained significantly above the target rates for more than a year without extenuating circumstances, the practice would no longer be able to participate in the PCOP program until an improvement plan was developed and agreed upon with the payer.

2. Following Evidence-Based Appropriate Use Criteria

The oncology practice would agree to use Choosing Wisely guidelines and other evidence-based appropriate use criteria developed or endorsed by ASCO when ordering or prescribing drugs, laboratory tests, and imaging studies. The initial set of guidelines are shown in Table 1. These criteria would be updated over time as new evidence is developed and as new types of drugs and tests become available. (Several of the guidelines shown in Table 1 are currently being updated.)

Expected Performance Levels

The practice would document its adherence to the relevant appropriate use criteria when a drug or test is ordered and report its adherence rate on all criteria. In general, a practice would be expected to have an adherence rate of at least 80% for each criterion, but a practice would not be expected to have 100% adherence in order to ensure that oncologists have the flexibility to adapt testing and treatment to individual patient needs. For example, use of an expensive anti-emetic or anti-neutropenic medication may help some patients avoid complications that could require hospital treatment, even though the same drugs would not have similar benefits for other patients. The oncology practice and payer could agree to use higher or lower target adherence rates for specific appropriate use criteria depending on the strength of the evidence, the specificity of the criterion, and the availability of the data to accurately measure adherence.

Adjustments in Payments Based on Performance

If the practice failed to achieve agreed-upon adherence rates for the appropriate use criteria, the New Patient Treatment Planning and monthly Care Management Payments would be reduced by amounts agreed to in advance by the payer and practice. If adherence rates remained low for more than a year without extenuating circumstances, the practice would no longer be able to participate in the PCOP program until an improvement plan was developed and agreed upon with the payer.

Changes in Existing Prior Authorization and Pathways Programs

If the payer has a prior authorization requirement for a drug, laboratory test, or imaging study that is covered by the appropriate use criteria the practice agrees to use as part of PCOP, the payer should exempt the practice from the prior authorization requirement (or automatically authorize use upon request), since the practice would already be following the appropriate use criteria that the payer would presumably be using in making the authorization determination.

A practice participating in PCOP should also be exempt from using any pathway program required by the payer if (a) the criteria used in the pathway program are inconsistent with the evidence-based criteria in PCOP or (b) the practice is using a different pathway program that is

consistent with the criteria in PCOP. The existing Choosing Wisely guidelines and other evidence-based appropriate use criteria developed by ASCO address many of the largest opportunities for savings that would be expected to be achieved by any pathways program. To support PCOP, ASCO will identify appropriate use criteria in areas where (a) there is significant spending, (b) there is evidence of inappropriate use or opportunities to deliver equivalent outcomes for patients at lower cost, and (c) there is sufficiently strong evidence available to create appropriate use criteria applicable to 80% or more of patients. It would make sense for payers and practices to support ASCO in efforts to develop and maintain appropriate use criteria, since the costs of supporting a single national system likely would be less than the costs payers incur by contracting with multiple vendors to support multiple pathways systems and the costs practices incur using multiple pathways programs. Oncology practices can then choose which software system best enables them to implement the appropriate use criteria and avoid the inefficiencies associated with individual payers using different pathways programs.

TABLE 1 INITIAL APPROPRIATE USE CRITERIA FOR PATIENT-CENTERED ONCOLOGY PAYMENT

Appropriate Use of Granulocyte Colony Stimulating Factors (GCSF)

• Not using GCSF for primary prevention of febrile neutropenia for patients with less than 20% risk of the complication (ASCO Choosing Wisely guideline)

Appropriate Use of Anti-Emetics

- Not using high-cost antiemetic drugs with chemotherapy regimens that have low/moderate emetogenic risk (ASCO Choosing Wisely guideline)
- Using appropriate antiemetic drugs with chemotherapy regimens that have high emetogenic risk (ASCO Quality Oncology Practice Initiative measure)

Appropriate Use of Chemotherapy

- Not using targeted therapy identified for use against a specific genetic aberration without genetic testing and verification of appropriate biomarkers (ASCO Choosing Wisely guideline)
- Not using combination chemotherapy instead of single-drug chemotherapy for metastatic breast cancer unless needed for rapid response to symptoms (ASCO Choosing Wisely guideline)
- Not using therapies that have limited effectiveness for specific forms of cancer, e.g.,
 - Avoiding use of bevacizumab and pemetrexed for stage IV non-small cell lung cancer patients with non-adenocarcinoma histologies
 - > Avoiding use of cetuximab and panitumumab for patients with metastatic colon cancer and KRAS mutations
- Using lower-cost or generic chemotherapy drugs instead of higher-cost, branded drugs where evidence indicates they are equivalent

Appropriate Use of Laboratory Testing and Imaging

- Not using PET, CT, and radionuclide bone scans in staging of early prostate cancer at low risk of metastasis (ASCO Choosing Wisely guideline)
- Not using PET, CT and radionuclide bone scans in staging of early breast cancer at low risk for metastasis (ASCO Choosing Wisely guideline)
- Not performing surveillance testing (biomarkers) or imaging (PET, CT, and radionuclide bone scans) for asymptomatic individuals treated for breast cancer with curative intent (ASCO Choosing Wisely guideline)
- Not using PET or PET-CT scanning as part of routine follow-up care to monitor for cancer recurrence in asymptomatic patients who have finished initial treatment to eliminate the cancer unless there is high-level evidence that such imaging will change the outcome (ASCO Choosing Wisely Guideline)

3. Providing Quality End of Life Care Consistent With Patient Wishes

The oncology practice would agree to use Choosing Wisely guidelines and selected quality measures developed or endorsed by ASCO through its Quality Oncology Practice Initiative (QOPI) to guide end of life treatment. The initial set of guidelines would be:

- Avoiding chemotherapy in solid tumor patients with poor performance status (ECOG PS 3 or 4), who have had no benefit from prior evidence-based interventions, who are not eligible for a clinical trial, and where there is no strong evidence supporting the clinical value of further anticancer treatment. (ASCO Choosing Wisely Guideline).
- Avoiding chemotherapy within 14 days prior to death. (ASCO QOPI Measure 48)
- Enrolling patients in hospice more than 7 days before death. (ASCO QOPI Measure 45a)
- Ensuring patients' pain is addressed. (ASCO QOPI Measure 38)

These criteria would be updated over time as new evidence is developed.

Expected Performance Level

The practice would measure and report on its performance on the end-of-life care criteria and quality measures. In general, a practice would be expected to have an adherence rate of at least 80% for appropriate use criteria and to meet or exceed performance benchmarks on quality measures established based on data collected by ASCO through its Quality Oncology Practice Initiative. The oncology practice and payer could agree to use higher or lower target rates for specific end of life measures based on the availability of palliative care and hospice resources available in the community and based on the availability of complete and accurate data needed to measure adherence.

Adjustments in Payments Based on Performance

If the practice failed to achieve agreed-upon performance levels for the end of life care criteria and measures, the monthly Care Management Payments would be reduced by an amount agreed to in advance by the payer and practice. If adherence rates remained low for more than a year without extenuating circumstances, the practice would no longer be able to participate in the PCOP program until an improvement plan was developed and agreed upon with the payer.

4. Providing Quality Care

The oncology practice would agree to provide care consistent with accepted standards of quality and to collect and report on the subset of quality measures in ASCO's Quality Oncology Practice Initiative (QOPI) shown in Table 2.

Expected Performance Level

Oncology practices would be expected to meet or exceed performance benchmarks for quality measures established based on data collected by ASCO through its Quality Oncology Practice Initiative. Alternatively, a practice could be automatically deemed to meet the quality performance standards if it receives QOPI Certification from ASCO.

Adjustments in Payments Based on Performance

If the practice failed to achieve the performance targets, the New Patient Treatment Planning Payment and monthly Care Management Payments would be reduced by an amount agreed to in advance by the payer and practice. If the practice failed to achieve performance targets for more than a year without extenuating circumstances, the practice would no longer be able to participate in the PCOP program until an improvement plan was developed and agreed upon with the payer.

TABLE 2 QUALITY ONCOLOGY PRACTICE INITIATIVE MEASURES IN PCOP

Measures of Quality of Treatment Planning for a New Patient

- Pathology report confirming malignancy, and staging documented within one month of first visit (1, 2)
- Documented plan for chemotherapy and intent (curative or non-curative) before or within two weeks of treatment (9, 10)
- Patient emotional well-being assessed by the second office visit (24)
- Test for HER2/neu overexpression or gene amplification for female patients with breast cancer who are candidates for HER2/neu directed therapy (54)
- KRAS testing for patients with metastatic colorectal cancer who receive anti-EGFR MoAb therapy (74)
- Infertility risks discussed prior to chemotherapy with patients of reproductive age (33)
- Fertility preservation options discussed or referral to specialist (34)
- Patient ratings of their experience of care

Measures of Quality of Care During Treatment

All Patients

- Pain addressed (6)
- Oral chemotherapy education provided prior to the start of therapy (13oral2)
- Oral anti-cancer therapy monitored on visit/contact following start of therapy (13oral3)
- Antiemetic therapy prescribed appropriately with moderate/high emetogenic risk chemotherapy (29)
- Patient ratings of their experience of care

Breast Cancer Patients

- Chemotherapy recommended within 4 months of diagnosis to women under 70 with AJCC stage I (T1c) to III ER/PR negative breast cancer (52)
- Trastuzumab recommended to patients with AJCC stage I (T1c) to III HER2/neu positive breast cancer (55)
- Tamoxifen or AI recommended within 1 year of diagnosis to patients with AJCC stage I (T1c) to III ER or PR positive breast cancer (58)

Colon and Rectal Cancer Patients

- Adjuvant chemotherapy recommended within 4 months of diagnosis for AJCC stage III colon cancer (67)
- Adjuvant chemotherapy recommended within 9 months of diagnosis for AJCC stage II or III rectal cancer (71)
- Colonoscopy before or within 6 months of curative colorectal resection or completion of primary adjuvant chemotherapy (73)

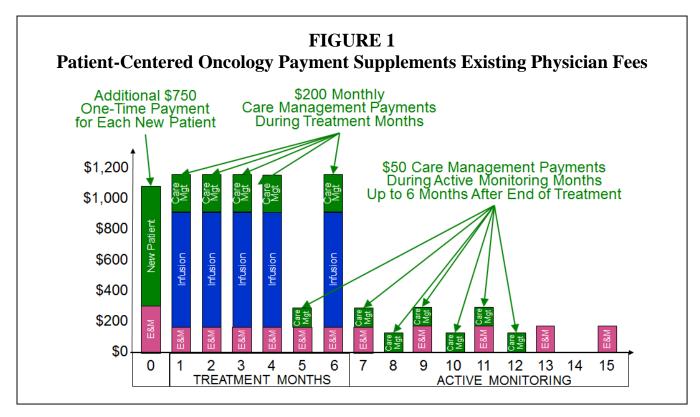
Lung Cancer Patients

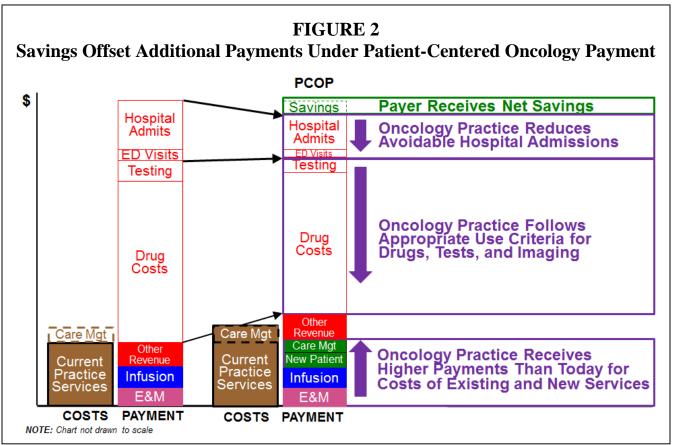
- Adjuvant chemotherapy recommended for patients with AJCC stage II or IIIA non-small cell lung cancer (79)
- Platinum doublet first-line chemotherapy or EGFR-TKI (or other targeted therapy with documented DNA mutation) recommended to patients with initial AJCC stage IV or distant metastatic non-small cell lung cancer with performance status of 0-1 without prior history of chemotherapy (85)

Measures of Quality of Care Following Completion of Treatment

- Avoiding chemotherapy within 14 days prior to death (48)
- Enrolling patients in hospice more than 7 days before death. (45a)
- Ensuring patients' pain is addressed appropriately (38)
- Patient/family ratings of their experience of care

NOTE: Numbers in parentheses indicate ASCO QOPI Measures





C. Impact on Patients, Payers, and Oncology Practices

1. Benefits for Patients

The new, flexible payments available through Patient-Centered Oncology Payment would help ensure that patients obtain accurate diagnoses, the most appropriate treatment for their disease, and appropriate testing and monitoring; enable patients and their families to obtain adequate education and support services; ensure that patients can obtain a rapid response when they are experiencing problems during their treatment; enable patients to receive continued support after treatment ends, particularly if their cancer has not been cured; and generally help patients and families receive the highest quality treatment and services.

In addition to the benefits of better treatment outcomes, fewer complications, and more rapid response when complications occur, patients would benefit financially by reducing the likelihood that they will have expensive visits to the emergency department or expensive hospital admissions, and by ensuring they only receive expensive medications and tests when necessary.

2. Costs and Benefits for Oncology Practices

Combined, the four additional payments would represent a nearly 50% increase in revenue over current E&M and infusion payments for a typical oncology practice. An oncology practice with 500 new patients per year would receive approximately \$1 million in new revenue. (Appendix A contains additional detail on the estimated new revenues for an oncology practice.) This additional revenue will enable the practice to cover three types of costs:

- Costs the practice is currently incurring that are not billable, such as non-face-to-face visits with clinicians and services delivered by non-physician staff;
- Costs of providing additional care management for patients to avoid and better manage complications of treatment and to avoid complication-related emergency department visits and hospital admissions;
- Costs of utilizing appropriate use criteria and of measuring and reporting on performance on these criteria and other quality measures.

In addition, by providing sufficient payment for the services that oncology practices need to deliver to patients, there will be less pressure on oncology practices to generate revenues from other sources to cover the costs of unfunded services.

3. Costs and Savings for Payers

The payments to oncology practices for their services currently only represent about 10% of a payer's total spending on cancer treatment. Consequently, even a 50% increase in the payments to an oncology practice would only represent about a 5% increase in the payer's total spending on oncology care. This relatively small increase in total spending would be more than offset by significant savings from maintaining low rates of avoidable ED visits and hospitalizations, ensuring appropriate use of drugs, laboratory tests, and imaging studies, and delivering high-quality end-of-life care. As shown in Figure 3 for Medicare spending, even with conservative estimates of savings, payers would likely see a net reduction of at least 4% in total spending. (Appendix B describes how the savings in Figure 3 were estimated.) A payer with 5,000 oncology patients would achieve net savings of approximately \$10 million if all oncology practices were participating, even with the higher total payments to the oncology practices. Payers with prior authorization and pathways programs would be able to achieve additional savings since the costs associated with operating those programs would no longer be necessary.

FIGURE 3

Costs and Savings from Patient-Centered Oncology Payment

Based on 2012 Average Part A & B Spending During Chemotherapy Treatment for Medicare Beneficiaries with Breast, Colon, or Lung Cancer

	Current Average Spending Per Beneficiary	With Proposed New Payments and Estimated Savings	% Change	\$ Change
Month Prior to Treatment				
E&M Services	\$296	\$296		
New Patient Treatment Planning		\$750		
Subtotal	\$296	\$1,046	253%	\$750
During and 2 Months After Treatment				
E&M Services	\$2,071	\$2,071		
Infusion Services	\$1,904	\$1,904		
Care Management (5 Mos. Treatment)		\$1,000		
Care Management (3 Mo. Monitoring)		\$150		
Clinical Trial Patients		\$40		
Subtotal	\$3,975	\$5,165	30%	\$1,190
Chemotherapy/Drugs	\$25,131	\$23,372	-7%	
Lab Tests	\$583	\$553	-5%	
Imaging	\$1,503	\$1,428	-5%	
ED/Ambulance	\$421	\$295	-30%	
Inpatient	\$7,100	\$4,970	-30%	
Other	\$10,920	\$10,920	0%	
Subtotal	\$45,657	\$41,538	-9%	(\$4,120)
Months 3-6 After Treatment				
E&M Services	\$120	\$120		
Care Management (4 Mo. Monitoring)		\$200		
Clinical Trial Patients		\$20		
Subtotal	\$120	\$340	183%	\$220
Total	\$50,048	\$48,089	-3.9%	(\$1,960)
For 500 New Patients:				
Additional Practice Revenues		\$1,080,000		
Net Medicare Savings		\$979,802		

D. Comparison of PCOP to "Shared Savings" Payment Systems

The savings shown in Figure 3 reflect the average savings that would be achieved across all oncology practices participating in the Patient-Centered Oncology Payment program, not the amount of savings that any *individual* practice would necessarily achieve. In contrast to "shared savings" payment systems, PCOP does not require that an individual oncology practice reduce spending by a particular amount in order to receive the additional payments described in Section II-A. Under the PCOP payment system, each practice would be expected to follow appropriate use criteria for drugs, imaging, etc. and to achieve best-practice levels of emergency department utilization and hospital admissions for their patients. A practice that is already following appropriate use criteria and providing the care management services necessary to help patients avoid hospitalizations would qualify for the additional payments merely by maintaining their current levels of performance, whereas other practices that are prescribing drugs in ways that are not consistent with appropriate use criteria and/or whose patients have high rates of emergency room use and hospital admissions would reduce spending by much more than the increase in payments they receive because of the impact of the accountability components of PCOP.

Under a shared savings payment model, oncology practices could be financially penalized for using effective but expensive new treatments if that caused spending to increase beyond a pre-defined savings target. Shared savings programs can also financially reward practices for avoiding the use of desirable drugs or tests, particularly where there are not clear treatment guidelines or adequate quality measures to protect patients. In contrast, PCOP would not tie payments to oncology practices directly to the "savings" they achieve, but rather would pay practices sufficiently for necessary patient care services in return for adherence to appropriate use criteria and best-practice management of patient care. Under PCOP, the oncology practice would not benefit from simply reducing spending; instead, spending reductions under PCOP would result from the practice's efforts to help patients avoid the need for expensive emergency department visits and hospitalizations and from the application of appropriate use criteria.

In "upside-only" shared savings models, payers have no assurance that savings will occur. In contrast, in PCOP, payers would know that oncology practices would be specifically focusing on those aspects of spending that can be reduced and using approaches that have been shown to successfully impact spending. In addition, payers could also save money by eliminating their prior authorization, pathways, and care management programs, since under PCOP, practices would be carrying out comparable functions more efficiently and effectively themselves.

E. Support for Rapid, Successful Implementation

As noted in Section I-D, ASCO has created a number of cutting-edge programs to help oncology practices measure and improve their performance. These programs will help practices of all sizes and types to successfully implement the payments and accountability measures defined in PCOP and to use the additional resources under PCOP to rapidly make significant improvements in the quality and affordability of cancer care. ASCO is committed to working with practices and payers to refine the details of the Patient-Centered Oncology Payment program so that it can be implemented rapidly and efficiently and to make necessary modifications to ensure that it achieves the desired benefits for patients, payers, and practices. ASCO is also committed to working with oncology practices that are implementing PCOP to help them be maximally successful and to share best practices to ensure that all cancer patients can benefit from higher quality, more affordable care.

III. OPTIONAL ADVANCED VERSIONS OF PCOP

The Patient-Centered Oncology Payment system described in Section II would provide four new non-visit-based payments to oncology practices in addition to their existing payments in return for accountability in several key aspects of choosing treatments and managing patient care. Two more advanced options described in this section would combine these new payments with (1) the E&M and infusion payments the practice is already receiving and (2) payments for other oncology services the patients is receiving, including potentially services such as hospital care that the oncology practice does not deliver directly.

Option A: Consolidated Payments for Oncology Practice Services

In Option A, instead of creating *additional* billing codes to cover the costs of services for which existing, narrowly-defined E&M and infusion billing codes are insufficient, new billing codes would be created to *replace* the existing narrowly-defined codes. This would still provide oncology practices with the additional resources described in Section II but also greater flexibility to determine exactly how to deliver effective services to patients, including services that may not meet the specific criteria for either current or new billing codes that are defined around particular types of services.

Under Option A, three new consolidated sets of billing codes would be created that would replace the use of CPT codes for E&M services and infusion services. The payments for these new codes could be used for delivery of the types of services described in Section II as well as the services that can currently be paid for under E&M and infusion services codes:

- 1. A **New Patient Payment** would be paid to cover all diagnosis, treatment planning, education, and support services prior to the beginning of treatment. (The costs of any diagnostic testing ordered by the practice would still be billed and paid separately.)
- 2. A **Treatment Month Payment** would be paid during each month that the patient is receiving treatment. The payment would be used to cover all of the costs of office visits, phone calls and other patient contacts, and the costs of administration of chemotherapy and supportive drug treatments ordered by the practice. (The costs of drugs, tests, imaging, etc. would still be paid separately.) The payment would be made regardless of whether the patients are using oral medications or infused/injected drugs. The payment would also be made if the patient is in hospice care if the oncologist is the hospice physician. The practice could receive both a Treatment Month Payment and a New Patient Payment in the same month if the patient began treatment within 30 days of their initial contact with the practice, otherwise the Treatment Month Payment would be paid in the month when treatment actually began. The Treatment Month Payment would cover the costs of infusions wherever they were delivered, whether in the oncology practice's offices or in a separate infusion center or outpatient hospital facility. There would be four or five different Treatment Month Payment billing codes to allow higher amounts of payment to be made for patients who (a) have greater needs, (b) are receiving more toxic, complex regimens, (c) need significant changes in their treatment regimens, and/or (d) are participating in clinical trials.
- 3. An **Active Monitoring Month Payment** would be paid during (a) months in between treatment months, (b) the six months following the end of treatment for non-metastatic disease, and (c) all months following the end of treatment for patients with metastatic disease. There would be two or three different Active Monitoring Month billing codes to allow higher amounts of payments to be made for patients who require more intensive services than others.

These three categories of payments would almost completely replace the current payments made under 58 separate CPT codes for patient visits and infusions that oncology practices use today to support their services. Practices would bill payers for these new payments using new billing codes similar to the way the practices currently bill for CPT and HCPCS codes. Even with multiple levels of the Treatment Month Payment, there would be fewer than a dozen new payment codes, a more than 80% reduction in the number of billing codes practices and payers use today. This would reduce administrative costs of documentation and protect practices from revenue losses if they redesign care in ways that reduce unnecessary office visits or treatments. (A practice may still choose to use existing CPT codes to track care delivery or payers may request that a practice report information on the encounters with patients even though the codes are not separately payable.)

E&M billing codes would still be used for patients who come to the practice for a consultation but do not begin treatment and for patients who visit the practice for continued survivorship support after the Active Monitoring Month Payments have ended.

The payment rates for the new codes would be set so that they continue to provide the revenues that practices are currently receiving to support their services as well as the additional revenues they need to support new services or changes in the types of services they deliver. Discussions with ASCO members and informal surveys of oncology practices about the distribution of their time and costs across the phases of patient care have indicated that the New Patient Payment should be the largest payment, and the relative magnitude of the other payments should be as follows:

- New Patient Payment: 100%
- Treatment Month Payment: 40%-60%, depending on patient acuity
- Active Monitoring Month Payment during treatment holidays: 30%
- Active Monitoring Month Payment during the first month after treatment ends: 30%
- Active Monitoring Month Payment during months 2-6 after treatment ends: 20%

Option B: Virtual Budgets for Oncology Care

Option B is intended to give an oncology practice greater flexibility and greater accountability over the costs and quality of oncology care than Option A in addition to the extra resources provided under both Option A and the basic PCOP payment model. Monthly budgets would be created in one or more of the time periods defined in Option A (e.g., a monthly budget for each Treatment Month). The monthly budget would be designed to cover both the services that the oncology practice delivered and also one or more other categories of services delivered by other providers. The other services to be included in the budget would be selected by the practice from the following categories based on which services it felt it could control:

- > emergency department visits and hospital admissions for complications of treatment;
- ➤ laboratory tests;
- > imaging studies;
- > supportive drugs; and/or
- > anti-cancer drugs.

Under this approach, for example, if the oncology practice wanted to implement more extensive care management services than were possible under the basic PCOP model or Option A, it would have the flexibility to do so if it were able to achieve additional savings from avoiding ED visits or hospitalizations, but if those additional services were not successful in reducing ED visits and

hospitalizations, the practice would be responsible for covering all or part of the costs of the resulting ED visits and hospitalizations.

Option B would be structured as a "budget" rather than a payment so that the oncology practice would not have to take responsibility for paying other providers (such as a hospital or laboratory) directly.

The monthly budget amounts would differ for different types of patients to reflect the fact that there are differences in the types and costs of testing and treatment that are appropriate for patients with different types of cancer, different stages of cancer, etc.

For any month in which the virtual budget applies to a particular patient, the oncology practice would bill the payer for its own services using the billing codes defined in the basic PCOP model (Section II) or Option A, and the practice and/or other providers (e.g., a hospital, testing laboratory, or imaging facility) would bill the payer for the services they delivered that are covered by the virtual budget. If there is money left over in the budget after all of the individually billed services have been paid, that surplus would be paid to the practice. If the total amount of the billed services exceeded the budget, the practice would be responsible for covering all or part of that overage. There would be limits on the total amount of budget overage for which the practice would be responsible, with the limits defined in the payment agreement with the payer.

For example, for patients with a particular type of cancer who are also similar with respect to other factors that affect the types of treatments and other services they need:

- A New Patient budget would be defined for the costs of practice services and testing that the practice orders for a new patient before treatment begins. The practice would bill the payer for a New Patient Payment as defined in Option A, the laboratories and imaging centers would bill and be paid for any tests or imaging studies performed on the patients, and then the payer would periodically tabulate the total billings against the budget and either pay the surplus to the practice or request that the practice pay for the overage (or the overage could be deducted from future payments to the practice).
- A separate risk-adjusted Treatment Month budget would be defined for months when treatment is underway; this budget would be designed to cover, on average, the costs of both practice services delivered during the month and the expected costs of hospital ED visits and admissions, laboratory testing and imaging, supportive drugs, and anti-cancer drugs. The practice would bill the payer for a Treatment Month Payment as defined in Option A each month for each patient and would also bill the payer for the costs of both supportive and anti-cancer drugs it administers, the hospital would bill and be paid for any ED visits and hospitalizations for the patients, and the laboratories and imaging centers would bill for testing. The payer would then periodically tabulate the billings against the budget and either pay the surplus to the practice or request that the practice pay for the overage (or the overage could be deducted from future payments to the practice).
- During months after treatment ends, a risk-adjusted Active Monitoring Month budget would be defined for the costs of practice services and any testing that the practice orders for the patient. The practice would bill the payer for an Active Monitoring Month Payment as defined in Option A, the laboratories and imaging centers would bill and be paid for any tests or imaging studies performed on the patients, and then the payer would periodically tabulate the billings against the budget and either pay the surplus to the practice or request that the practice pay for the overage (or the overage could be deducted from future payments to the practice).

 After the time period for Active Monitoring Month Payments ends, the practice could bill for and receive E&M payments for office visits and payments for other services just as it does today.

In order to protect the practice against inappropriate financial risk, there would be one or more of the following six additional components in the payment agreement with the payer:

- **Risk Adjustment/Stratification.** The monthly budgets/payments would be stratified and adjusted based on objective characteristics of the patient and treatment that would be expected to result in the need for more services or increase the risk of complications.
- Outlier Payment or Individual Stop Loss Insurance. The payment to the practice from the payer would be increased if spending on an individual patient exceeds a pre-defined threshold. An alternative would be for the practice to purchase individual stop loss insurance (sometimes referred to as reinsurance) and include the cost of the insurance in the payment budget.
- **Risk Corridors or Aggregate Stop Loss Insurance.** The payment to the practice would be increased if spending on all patients exceeds a pre-defined percentage above the payments. An alternative would be for the practice to purchase aggregate stop loss insurance and include the cost of the insurance in the payment bundle.
- Adjustment for External Price Changes. The payment to the practice would be adjusted for changes in the prices of drugs, hospital services, etc. that are beyond the control of the practice.
- Accountability for Excluded Services. A separate accountability mechanism, such as the mechanisms described in Section II-B, would be created for services that are not included in the monthly budget but are paid directly by the payer.

In order to protect patients against poor quality care or underuse of appropriate treatments, the quality of care would be monitored using the measures in Tables 1 and 2, and payments to the practice would be reduced if performance on the measures worsened or failed to meet pre-defined target levels.

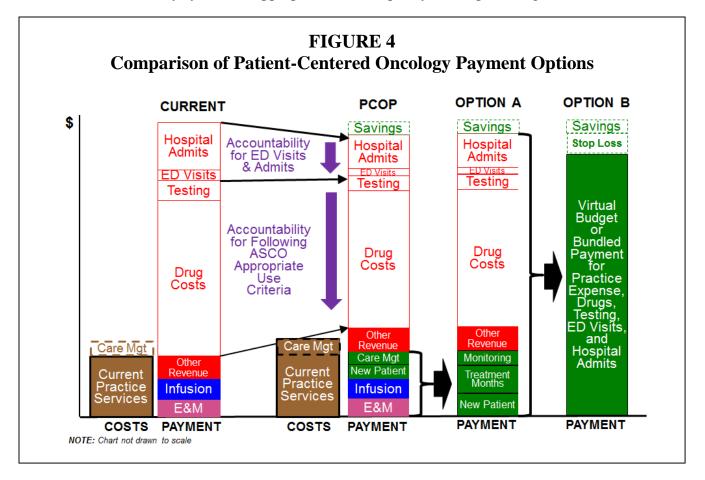
An oncology practice and payer would need to work together to set payment rates and outlier thresholds and to define risk adjustment, risk corridors, adjustments for external price changes, accountability mechanisms for excluded services, and quality measures based on (1) an analysis of the costs that oncology practices incur to deliver high-quality, appropriate patient care during the periods of time defined by the codes; (2) an analysis of current average payment amounts to the oncology practice during the periods of time defined by the codes; (2) an analysis of the spending on services delivered by other providers to the practices' patients; (4) estimates of the expected reduction in spending on other aspects of oncology care that the oncology practice could achieve; and (5) an analysis of how costs and spending differ based on the characteristics of patients and treatments.

In contrast to a single payment for an "episode" of care that would cover all of the costs of oncology services during either a specific multi-month period of time (e.g., six months) or the full length of treatment or care for the patient, the monthly budgets in PCOP Option B would not penalize oncology practices for having patients who can benefit from longer courses of treatment or create problematic financial incentives for oncology practices to provide fewer treatments than would be appropriate.

Transitioning to More Advanced Patient-Centered Oncology Payment Options

Each of the PCOP options can achieve the goal of providing additional resources to oncology practices to support high-quality care to patients while controlling or reducing the total cost of cancer care. Different practices and different payers may find it more feasible or desirable to use different options. Some may be more comfortable with a system that simply expands the number of billable services, as is done in the basic PCOP model in Section II, while others may be willing to make the changes needed to create the simpler and more flexible payment structure defined in Option A. Some practices may have the capabilities necessary to take accountability for certain aspects of the costs of oncology care beyond their own services as part of the virtual budgets defined in Option B, while others may only feel they are able to take accountability for pre-defined utilization targets for specific types of services as defined in the basic PCOP model and in Option A. An oncology practice could potentially be paid under one option for some types of cancer and other options for other types of cancer.

The three options can also provide a transitional path to more flexible, accountable payment. A practice and payer could first use the basic PCOP approach defined in Section II, creating new billing codes for currently uncompensated services and using the accountability mechanisms for specific kinds of services. Then the practice and payer could move to create consolidated payments as in Option A based on the average payments for both the existing and new billing codes during the relevant time periods, while continuing to use separate accountability mechanisms for specific kinds of services. Finally, rather than using separate measures and payment adjustments to define accountability for utilization and spending on other services, some or all of those services could be bundled into the virtual budgets to create the system described under Option B. As the transition was made, the accountability system for appropriate use and quality would protect against underuse.



APPENDIX A: Payment Amounts and Revenues Under PCOP

The four new payments under PCOP are designed to address two separate, but related problems:

- Currently, the only patient care services delivered by oncology practices that can be billed to Medicare and commercial health plans are face-to-face office visits between clinicians and patients (billable as evaluation and management services, i.e., E&M codes) and infusions or injections of fluids and medications. Services provided by physicians and other clinicians outside of face-to-face visits (such as research on a patient's condition or responding to patient phone calls) and services delivered by non-physician staff (such as nurses providing education to patients or financial counselors assisting patients with financial issues) are not billable. The National Practice Benchmark for Oncology found that only 31% of an oncology practice's costs are covered by revenues from E&M and infusion billing codes, forcing practices to make up the gap using other forms of revenue.¹²
- In order to pursue the available opportunities to improve care and reduce spending, practices will need to invest in additional staffing and infrastructure costs for care management services to patients (to help reduce treatment complications and avoidable hospitalizations), for implementation of appropriate use criteria, and for collection and analysis of performance measures. In order to participate in clinical trials, practices that do not have funding from trial sponsors will need to have sufficient staffing to manage the trial protocols and maintain the necessary records on patient care.

Consequently, the four additional payments defined in Section II are needed both to provide sufficient support for the services that oncology practices are *currently* delivering as well as the new and improved services they *want* to deliver but *cannot*.

Amount of the New Patient Treatment Planning Payment

A group of oncology practices informally surveyed by ASCO reported that they spend between 4 and 20 hours with each new patient, depending on the complexity of the patient's condition, the type of insurance coverage they have, the availability of family supports, etc. Most of this is time spent by non-physician staff conducting patient and family education, counseling, and administrative tasks, but some of this is physician time in diagnosis and treatment planning that occurs outside of patient visits or additional time in patient visits beyond what is covered by E&M payments.

This total time for new patients would likely represent a cost of approximately \$500-\$2,000 per patient, considering both physician and staff time. No data are currently available to determine the exact distribution of the time and costs across patients, so a mid-range estimate of \$1,000-\$1,250 represents a likely average. Typically all that can be billed to Medicare is about \$250 - \$300 for 1-2 E&M Services office visits with the physician. This leaves an unfunded gap of approximately \$750-\$1,000. The PCOP New Patient Treatment Planning payment of \$750 would be the minimum needed to fill this gap.

Amount of the Monthly Payments for Care Management

Although most of the revenues a typical oncology practice currently receives are generated during the months in which treatment is given, those payments do not provide much flexibility to the practice because they are explicitly tied to face-to-face visits with clinicians and infusions of medication.

10

¹² Towle EL, Barr TR, Senese JL. "The National Practice Benchmark for Oncology, 2014 Report on 2013 Data." *Journal of Oncology Practice*, November 2014.

Patients receiving treatment for cancer are at risk of experiencing serious complications, and if those complications are not identified and addressed as early and as quickly as possible, the patients may require emergency care or hospitalization. Patients can also mitigate or avoid many complications if they have an adequate understanding of preventive approaches and how to implement them. The most appropriate and cost-effective approach to patient education, rapid evaluation of potential signs of complications, and rapid response to serious complications is for oncology practices to have sufficient nursing and support staff to spend time providing continuous education to patients, to proactively call them to ensure they are adhering to their treatment plans, to identify and evaluate symptoms when they first appear, and to rapidly provide treatment for potentially serious complications. However, none of these services are currently billable under Medicare or most health insurance plans. Moreover, some of the same kinds of treatment planning, shared decision-making, and patient education services that are needed before treatment begins are also needed at various points during the treatment process as the oncologist assesses whether the patient is responding to the treatment as expected and makes necessary changes in treatment.

The gap in billable services compared to need is particularly large for oncology patients who are receiving exclusively oral anti-cancer therapy and no infused or injected chemotherapy. Since patients do not need to come to the oncology practice to receive these medications, the practice has no direct way to verify that the patient is receiving the right doses of drugs at the right times and practice staff will not see the patient in person as frequently to see how they are doing and intervene early if there are any problems. Studies have shown that patients on oral anti-cancer therapy both underuse and overuse medications, particularly with regimens that have complex schedules. The most appropriate way to support patients taking oral anti-cancer therapy is for nurses or other practice staff to spend adequate time to educate patients, to proactively contact patients to ensure they are taking their medications appropriately, and to quickly respond when patients have questions about how to deal with missed dosages, side effects, potential drug interactions, etc. However, these services are not currently billable under Medicare or most health plans. Although the practice could be paid if the patient comes to the office for a face-to-face visit with a physician or other clinician, this is not an effective way to ensure that patients are managing their medications appropriately and it is both inconvenient and expensive for patients to make visits to an oncology practice if they are not necessary.

Since some of the largest opportunities for reducing avoidable spending occur during months in which treatment is given, it makes sense to invest sufficient resources during these months, and so PCOP includes a \$200 monthly payment for Care Management During Treatment for this purpose.

However, significant opportunities for reducing avoidable spending also occur during months in which treatment is not being given. For some patients, treatment has been temporarily stopped because of adverse reactions that must be carefully managed, and some patients whose cancer is not responding to treatment may be more likely to transition to palliative care or hospice care if they know they can continue to receive support from the oncology practice after treatment ends. Even cancer survivors who have successfully completed treatment with no evidence of disease can experience delayed side effects and complications that need to be monitored and effectively managed.

Consequently, PCOP includes a \$50 per patient per month payment for Care Management (a) during months in which treatment is not being given but before treatment is completed and (b) for six months after treatment is completed.

Amount of the Payment for Patients on Clinical Trials

Participation in a clinical trial requires following specific protocols for treatment and the collection and reporting of significant amounts of additional data beyond what is typically required for patients who are not in a trial. Although trials sponsored by pharmaceutical companies or funded through research grants may provide funding to cover these costs, there is no such funding for many important types of clinical trials, such as research comparing the effectiveness of different approaches to patient care. Under PCOP, the \$100 payment per month for each patient on a clinical trial would support an average of 2 hours of nursing time per patient each month to carry out these tasks for properly-structured research projects without external support.

Aggregate Cost of the Additional Payments Under PCOP

Figure 5 shows average Medicare payments to oncology practices for E&M services and infusion services (not including the payments for the drugs themselves) to patients receiving parenteral therapy for breast, colon or lung cancer during the successive phases of cancer care, i.e., initial diagnosis and treatment planning, treatment, breaks in treatment, and post-treatment. Based on the average number of months patients receive treatment, the average total Medicare payment to a practice for E&M and infusion services for these patients would be about \$5,500.

The PCOP payments for New Patient Treatment Planning and Care Management would total \$2,100 for the average patient. Assuming 75% of a practice's patients are receiving parenteral therapy and

		CURRENT ME	DICARE FFS P	AYMENT		PATIENT-CENTERED ONCOLOGY PAYMENT				
	Current Average E&M Payment Per Month	Current Average Infusion Payment Per Month	Total Payment Per Month	Average Number of Months	Total Current Payment Per Patient	Additional Monthly Payment	Additional Payment Per Patient	Total Monthly Payment	Total Payment Per Patient	Change in Payment Per Patient
Infused Treatment										
New Patient	\$300	\$0	\$300	1	\$300	\$750	\$750	\$1,050	\$1,050	250%
Treatment Months (Infusion)	\$200	\$750	\$950	5	\$4,750	\$200	\$1,000	\$1,150	\$5,750	21%
Treatment Holidays	\$60	\$0	\$60	1	\$60	\$50	\$50	\$110	\$110	83%
Post-Treatment Month 1	\$75	\$0	\$75	1	\$75	\$50	\$50	\$125	\$125	67%
Post-Treatment Months 2-3	\$50	\$0	\$50	2	\$100	\$50	\$100	\$100	\$200	100%
Post-Treatment Months 4-6	\$75	\$0	\$75	3	\$225	\$50	\$150	\$125	\$375	67%
Total Payment					\$5,510		\$2,100		\$7,610	38%
Oral Treatment										
New Patient	\$280	\$0	\$280	1	\$280	\$750	\$750	\$1,030	\$1,030	268%
Treatment Months (Oral)	\$150	\$0	\$150	5	\$750	\$200	\$1,000	\$350	\$1,750	133%
Treatment Holidays	\$50	\$0	\$50	1	\$50	\$50	\$50	\$100	\$100	100%
Post-Treatment Month 1	\$70	\$0	\$70	1	\$70	\$50	\$50	\$120	\$120	71%
Post-Treatment Months 2-3	\$25	\$0	\$25	2	\$50	\$50	\$100	\$75	\$150	200%
Post-Treatment Months 4-6	\$25	\$0	\$25	3	\$75	\$50	\$150	\$75	\$225	200%
Total Payment					\$1,275		\$2,100		\$3,375	165%
Total (75% Infusion, 25% Oral)					\$4,451				\$6,551	47%
Clinical Trial										
Treatment Months (Infusion)						\$100	\$500	\$100	\$500	
Treatment Holidays						\$100	\$100	\$100	\$100	
Post-Treatment Month 1						\$100	\$100	\$100	\$100	
Post-Treatment Months 2-3						\$100	\$200	\$100	\$200	
Post-Treatment Months 4-6						\$100	\$300	\$100	\$300	
Total Payment							\$1,200	\$0	\$1,200	
Total (75% Infusion, 25% Oral)					\$4,451				\$6,611	49%

25% are receiving solely oral therapy, this would represent a 47% increase over the average payments the practice is currently receiving from evaluation and management and infusion services. If patients were receiving shorter courses of therapy on average or a higher proportion of patients were receiving oral therapies, the percentage increase in total payments to the practice would be larger, and vice versa. Assuming that 5% of patients are on clinical trials and that they participate for a total of 12 months (to cover both the time period in which they are receiving treatment and follow-up after treatment ends), the Clinical Trial Payments would increase the overall average payments to the practice by an additional 2%.

APPENDIX B: Estimated Savings From PCOP

The accountability components of the Patient-Centered Oncology Payment system described in Section II-B are focused specifically on the aspects of oncology care described in Section I-A where there are significant opportunities to reduce avoidable spending. Various research and demonstration projects, such as those described in Section I-B, enable estimates to be made of the potential magnitude of the savings that could be achieved by supporting the necessary services through PCOP.

Savings From Avoiding Preventable Emergency Department Visits and Hospital Admissions

Various analyses have shown that (1) 50% or more of patients receiving chemotherapy visit the emergency room and are admitted to the hospital during the course of treatment; (2) 40-50% of the emergency department visits and hospital admissions are for conditions that are likely related to complications of the patients' chemotherapy; (3) these visits and admissions, particularly the hospital admissions, are expensive for both payers and patients; and (4) the total numbers of visits and admissions can be reduced by 30-50% through improved care management services for patients that are not supported through the current payment system.

- A study by Milliman of commercially-insured cancer patients receiving chemotherapy in 2007 found that there were an average of two emergency department (ED) visits and one inpatient admission per patient per year, and that approximately half of the ED visits and 40% of the hospital admissions were likely chemotherapy-related. Spending on chemotherapy-related emergency room visits was estimated to average \$743 per patient and spending on chemotherapy-related hospital admissions was estimated to average \$8,316 per patient, for total average spending of over \$9,000 per patient. Rates of chemotherapy-related emergency department visits varied by a factor of 4 across the country (from 465 visits to 1626 visits per 1000 patients), and rates of chemotherapy-related hospitalizations varied by more than 100% (from 223 to 484 per 1000 patients).¹³
- An analysis performed for ASCO by the Maine Health Management Coalition using commercial claims data from Maine found that in 2012, spending on emergency department visits for commercially insured patients during the time period in which they were receiving chemotherapy averaged \$435 per patient and spending on inpatient hospitalizations averaged \$4,751 per patient.
- A study of Medicare beneficiaries who received chemotherapy in 2012 found that risk-adjusted average inpatient spending ranged from \$4,094 per beneficiary for oncology practices in the lowest spending quartile to \$7,375 per beneficiary for practices in the highest-spending quartile.¹⁴
- An analysis performed for ASCO by The Moran Company using national Medicare data found that in 2012, spending on emergency department visits and ambulance services for Medicare beneficiaries during the time period in which they were receiving chemotherapy averaged \$421 per beneficiary and spending on inpatient hospitalizations averaged \$7,100 per beneficiary.¹⁵

¹³ Fitch K. Pyenson B. *Cancer Patients Receiving Chemotherapy: Opportunities for Better Management*. Milliman. March 30, 2010.

¹⁴ Clough JD et al. Wide Variation in Payments for Medicare Beneficiary Oncology Services Suggests Room for Practice-Level Improvement. *Health Affairs* 34(4): 601. April 2015.

¹⁵ These are averages across all beneficiaries during the period in which they were receiving treatment and for two months after treatment ended, regardless of whether they visited the emergency department or were hospitalized. The costs of individual ED visits or hospital admissions would be much higher than these figures, but not every beneficiary had an ED visit or hospital admission, and some had multiple visits or admissions. The study by Clough et al included patients who

• An oncology medical home project organized by Consultants in Medical Oncology and Hematology used clinical nurse triage management and enhanced access to care in the oncology practice to reduce total emergency room use by over 50% (from 1.64 visits per chemotherapy patient per year to .81 visits) and reduce total hospital admissions by over 50% (from 1.08 total admissions per chemotherapy patient per year to .53 admissions).¹⁶

• The COME HOME project operated by the New Mexico Cancer Center and Innovative Oncology Business Solutions found that 40-50% of cancer patients in their community were making ED visits and being admitted to the hospital. They were able to reduce total emergency department visits among cancer patients by 36% and total hospital admissions by 43% using a combination of triage and enhanced access. The project estimates that Medicare spending on COME HOME patients is \$2,149 less than for other cancer patients in the same region.

Assuming average Medicare spending of \$421 per beneficiary on all ED visits and \$7,100 per beneficiary on all inpatient admissions during the period in which the beneficiaries were receiving treatment, and assuming that oncology practices participating in the PCOP program can reduce ED visits and hospitalizations by an average of 30%, savings for the Medicare program would be at least \$2,256 per beneficiary.

Savings From Following Appropriate Use Criteria for Use of Chemotherapy

Spending on chemotherapy represents a large proportion of the total cost of cancer care. The majority of this spending is driven by a small number of drugs, and studies indicate that some of these drugs are being used in situations where there is little or no value for patients. Several projects have shown that implementation of prescribing guidelines can result in significant savings in drug spending.

- An analysis performed for ASCO by the Maine Health Management Coalition found that in 2012, spending on physician-administered drugs for commercially insured patients in Maine during the time period in which they were receiving chemotherapy averaged \$22,586 per patient. Six drugs accounted for more than two-thirds of all of this spending. 17% of the total drug spending was associated with Avastin (bevacizumab) and 14% of the spending was associated Neulasta (pegfilgrastim), so those two drugs represented nearly one-third of total spending on drugs.
- A study of Medicare patients who received chemotherapy in 2012 found that risk-adjusted spending on chemotherapy ranged from \$11,059 per patient for oncology practices in the lowest spending quartile to \$18,044 per patient for practices in the highest-spending quartile, a range of \$6,985. Over 1/3 of the variation (\$3,600) stemmed from variation in the use of just two drugs Neulasta (pegfilgrastim) and Avastin (bevacizumab).¹⁷

received any amount of chemotherapy at any point during the year, so the average spending reported in that study would be expected to be lower than averages calculated only for patients who were receiving treatment, as was the case in the calculations performed for ASCO by The Moran Company.

¹⁶ Sprandio JD, Flounders BP, Tofani S. Data-Driven Transformation to an Oncology Patient-Centered Medical Home. *Journal of Oncology Practice* 9(3):130. May 2013.

¹⁷ Clough JD et al. Wide Variation in Payments for Medicare Beneficiary Oncology Services Suggests Room for Practice-Level Improvement. *Health Affairs* 34(4): 601. April 2015.

• An analysis performed for ASCO by The Moran Company using national Medicare data found that in 2012, spending on physician-administered drugs for Medicare beneficiaries during the time period in which they were receiving chemotherapy averaged \$25,131.18

- A study of the use of Neulasta (pegfilgrastim) at an outpatient oncology clinic found that approximately half of all cases using pegfilgrastim for primary prophylaxis were not consistent with published guidelines, representing an avoidable cost of \$8,093 per patient. 37% of patients had no risk factors to justify use of the drug, and 22% only had one risk factor with low- or intermediate-risk chemotherapy regimens.¹⁹
- A study of the use of myeloid colony-stimulating factors (CSF) such as pegfilgrastim in lung and cancer patients found that 96% of CSFs were administered in scenarios where CSF therapy was not recommended by evidence-based guidelines.²⁰
- In one project involving over 1400 non-small cell lung cancer patients across the U.S., the use of evidence-based treatment guidelines was found to reduce 12-month average costs for chemotherapy by 37% (\$6,923) and average costs for other medications by 39% (\$2,824). Total spending for patient care was reduced by 35% (\$9,695 per patient).²¹
- In a project involving over 4,700 cancer patients at over 46 sites, drug costs were found to be 13% lower (\$2,440 per patient) at sites adhering to clinical pathways than sites that were not adherent.²²

Because of the introductions of new drugs, changes in the prices of drugs, new evidence about the efficacy of drugs, and changes in prescribing patterns, it is impossible to predict how much current spending would be reduced through the application of the specific appropriate use criteria included in PCOP. However, because of the high proportion of spending that is used for a small number of drugs where there is evidence of overuse, and because of the significant savings that have been achieved through application of guidelines, it seems likely that systematic application of the Choosing Wisely guidelines and other appropriate use criteria in Table 1 would result in significant savings on drugs.

Assuming average Medicare spending of \$25,131 per beneficiary on drugs during the period in which the beneficiaries are receiving treatment, and assuming that the application of appropriate use criteria would reduce total drug spending by 7%, savings for the Medicare program would be at least \$1,759 per beneficiary during the period in which they are receiving treatment.

Savings From Following Appropriate Use Criteria for Use of Testing and Imaging

Laboratory testing and imaging represent a smaller proportion of cancer care spending than spending on drugs or hospitalizations, so the potential savings from application of appropriate use criteria will

¹⁸ The study by Clough et al included patients who received any amount of chemotherapy at any point during the year, so the average spending reported in that study would be expected to be lower than averages calculated only for patients who were receiving treatment, as was the case in the calculations performed for ASCO by The Moran Company.

¹⁹ Waters GE et al. Comparison of Pegfilgrastim Prescribing Practice to National Guidelines at a University Hospital Outpatient Oncology Clinic. *Journal of Oncology Practice* 9(4):203. July 2013.

²⁰ Potosky AL et al. Use of Colony-Stimulating Factors with Chemotherapy: Opportunities for Cost Savings and Improved Outcomes. *Journal of the National Cancer Institute* 103:979-982. June 22, 2011

²¹ Neubauer MA et al. Cost Effectiveness of Evidence-Based Treatment Guidelines for the Treatment of Non-Small-Cell Lung Cancer in the Community Setting. *Journal of Oncology Practice* 6 (1):12. January 2010.

²² Kreys ED. Koeller JM. Documenting the Benefits and Cost Savings of a Large Multistate Cancer Pathway Program from a Payer's Perspective. *Journal of Oncology Practice* 2013.

be smaller than the other categories, but they still represent important opportunities for controlling overall spending.

- An analysis performed for ASCO by the Maine Health Management Coalition using commercial claims data from Maine found that in 2012, spending on laboratory testing and imaging for commercially insured patients during the time period in which they were receiving chemotherapy averaged \$3,857 per patient.
- An analysis performed for ASCO by The Moran Company using national Medicare data found that in 2012, spending on laboratory testing and imaging for Medicare beneficiaries during the time period in which they were receiving chemotherapy averaged \$2,086.
- A study of Medicare patients who received chemotherapy in 2012 found that risk-adjusted spending on advanced imaging ranged from \$1,042 per patient for oncology practices in the lowest spending quartile to \$1,751 per patient for practices in the highest-spending quartile, a range of \$709. The majority of the variation was driven by variation in PET scans.²³

Assuming average Medicare spending of \$2,086 per beneficiary on laboratory testing and imaging during the period in which the beneficiaries are receiving treatment, and assuming that the application of appropriate use criteria would reduce that spending by 5%, savings for the Medicare program would be at least \$104 per beneficiary during the period in which they are receiving treatment.

Savings From Improving Care at End of Life

Various studies have shown that significant amounts of money are spent on treatment and hospital care for patients in their final weeks of life.

- A study of commercially-insured cancer patients found that 3.5% of cancer patients who received chemotherapy during the year died in the hospital; of those, 24% received chemotherapy during their last 14 days of life and an average of \$25,960 was spent during the last 14 days of their lives.²⁴
- Another study of commercially-insured cancer patients found that patients incurred an average of \$74,212 in cancer-related expenses in the six months before death and \$25,260 was spent in the final month of life.²⁵
- The Dartmouth Atlas project found that 61.3% of Medicare cancer patients were hospitalized at least once during their final month of life.²⁶

If 5% of the patients beginning treatment with a practice die before the end of the year, if current spending for care of those patients during the final month of life averages \$25,000, and if those costs can be reduced by 25% through more effective end-of-life care, average savings per patient would be at least \$300. (Note that the average savings just among the end-of-life patients would be higher; this is an estimate of the savings applied to an entire population of patients beginning treatment.)

²³ Clough JD et al. Wide Variation in Payments for Medicare Beneficiary Oncology Services Suggests Room for Practice-Level Improvement. *Health Affairs* 34(4): 601. April 2015.

²⁴ Fitch K. Pyenson B. *Cancer Patients Receiving Chemotherapy: Opportunities for Better Management*. Milliman. March 30, 2010.

²⁵ Chastek B, et al. Health Care Costs for Patients With Cancer at the End of Life. Journal of Oncology Practice 8(6s):75s. November 2012.

²⁶ Goodman DC, et al. Quality of End-of-Life Cancer Care for Medicare Beneficiaries, The Dartmouth Institute for Health Policy and Clinical Practice, November 16, 2010.

Net Savings From Patient-Centered Oncology Payment

Figure 3 in Section II combines the savings estimates for avoidable ED visits and hospitalizations and appropriate use of drugs, testing, and imaging with the estimated additional payments to oncology practices under Patient-Centered Oncology Payment. The estimated savings in Figure 3 are less than what data and demonstration projects have indicated is possible, so even if savings from some elements of accountability achieve less than expected, it is likely that savings from other accountability components will compensate for that. In addition, estimated savings from end-of-life care improvements are not included to avoid double-counting, so this means that the estimate of savings shown in Figure 3 is very conservative.

Because only about 10% of total spending on cancer care goes to E&M and infusion payments to the oncology practice, even though the new PCOP payments would be equivalent to a 49% increase in the revenues an oncology practice receives from those E&M and infusion services, the new payments would represent less than a 5% increase in the payer's total spending during the period in which the patient is receiving treatment. The cumulative savings from reducing avoidable ED visits and hospitalizations and applying appropriate use criteria to drugs and testing is estimated to reduce the other 90% of cancer care spending by 9%.

As shown in Figure 3, the net effect of the higher payments to oncology practices and the savings on other services would be a 4% reduction in total spending by a payer during the period in which patients are receiving treatment.

APPENDIX C:

How the Patient-Centered Oncology Payment Proposal Was Developed

In the spring of 2013, the American Society of Clinical Oncology convened an Oncology Payment Reform Workgroup to explore better ways to pay oncology practices. The members of the Workgroup included:

- Jeffery Ward, MD, Chair
- Anupama Kurup Acheson, MD, Vice-Chair
- John Cox, DO
- Michael Diaz, MD
- Omar Eton, MD
- Shelagh Foster
- James Frame, MD
- Karen Hagerty, MD
- Denis Hammond, MD
- Dan Hayes, MD
- John Hennessy
- Andrew Hertler, MD
- Don Moran
- Roscoe Morton, MD
- Ray Page, DO
- Kavita Patel, MD
- Charles Penley, MD
- Blase Polite, MD
- Christian Thomas, MD
- Robin Zon, MD
- Dan Zuckerman, MD

ASCO formed the Oncology Payment Reform Workgroup because of the widespread recognition of the need to control healthcare spending by Medicare, Medicaid, and commercial payers and the interest in new payment models to enable physicians in general and oncologists in particular to help control spending without harming patients or jeopardizing the viability of high-quality, independent oncology practices. Moreover, Medicare and commercial payers are not the only ones who bear the burden of the rising costs of healthcare; an increasing share of these costs is being passed on to patients. The cost of cancer diagnosis and treatment, even for patients with insurance, can lead to treatment delays, noncompliance, and exhaustion of savings. In fact, medical expenses are the leading cost of personal bankruptcy.

Over the course of the following year, the Payment Reform Workgroup developed a proposal for improving the way oncology practices are paid called *Consolidated Payments for Oncology Care (CPOC)*. Harold Miller, President and CEO of the Center for Healthcare Quality and Payment Reform, assisted the Workgroup with its discussions and analyses.

In May 2014, ASCO released the proposal for Consolidated Payments for Oncology Care and invited comment. Many ASCO members and other stakeholders endorsed the need for payment reform in oncology and provided suggestions on ways to improve the CPOC proposal.

In the fall of 2014, ASCO formed an Implementation Workgroup to incorporate the comments and suggestions into a revised proposal and to begin working with oncology practices and payers to implement it. Harold Miller and CHQPR also provided assistance to the Implementation Workgroup in its work. The members of the Workgroup include:

- Christian Thomas, MD, Co-Chair
- Dan Zuckerman, MD, Co-Chair
- Tammy Chambers
- James Frame, MD
- Bruce Gould, MD
- Ann Kaley
- Justin Klamerus, MD
- Lauren Lawrence
- Barbara McAneny, MD
- Roscoe Morton, MD
- Julie Moran
- Ray Page, DO, PhD
- Scott Parker
- Charles Penley, MD
- Gabrielle Rocque, MD
- Barry Russo
- Joel Saltzman, MD
- Laura Stevens
- Jeffery Ward, MD
- Kim Woofter
- Robin Zon, MD

In developing the *Patient-Centered Oncology Payment (PCOP)* proposal, the Implementation Workgroup built on the work done by the Payment Reform Workgroup in developing the *Consolidated Payments for Oncology Care (CPOC)* proposal. For example, the payment categories in Option A in the Patient-Centered Oncology Payment proposal are similar to those that were defined in the CPOC proposal, and the basic PCOP payment model was designed to achieve many of the same goals as CPOC but in a way that would be easier for many oncology practices and payers to implement with current billing and payment systems.