Estimating Consult Volume and Cost Avoidance

Source: Center to Advance Palliative Care, 2008

Most hospital-based palliative care programs receive a major portion of funding for staff salaries and other program costs directly from the hospital, justified by *Cost Avoidance* expectations. This tool is designed to help you understand key principles in calculating both consultation volume and potential cost avoidance for your hospital, to guide your start-up planning and as a key first tool to develop a business plan.

1. Understand why palliative care programs help avoid costs.

The cost of care for seriously ill and dying patients is frequently greater than the reimbursement for such care due to long length-of-stay and utilization of high-cost beds (ICU), drugs, and procedures, and the fixed payment design of reimbursement. For example, at VCU Health System, there were 1,927 admissions leading to inpatient deaths between 2003-2006 of adults insured by Medicaid and/or Medicare. Their mean LOS was 11.6 days. Analyzing the total costs and reimbursement for these cases by their LOS revealed that on average, cases with LOS of 1-4 days were profitable, but those with LOS of 5 days or more had costs that exceeded reimbursement.

You can obtain similar data by obtaining cost (not charge) and reimbursement data for all deaths in the past year at your hospital. These data will give you a “10,000 ft view” of one aspect of the financial issues involved in acute care with seriously ill patients. This is a complex problem and palliative care can not, by itself, eliminate the financial loss. However, such an analysis will help to make the case that a problem exists, and you can then make the case that in some cases, PC interventions can decrease costs of care without reducing reimbursement. In reality, once your program is established, you will be consulted on more patients who are discharged alive than deaths, but the narrower population of deaths is easy to identify and study.

By working to clarify goals of care, by discussing realistic prognostic information, by controlling symptoms, by supporting doctors, patients and families in making difficult decisions, palliative care teams can reduce the use of laboratory, radiology and pharmacy services. In addition, by working through complex decisions for ICU patients, palliative care can help move patients from high-cost ICU beds to lower cost medical/surgical beds, with the added advantage of potentially freeing up scare ICU beds for other patients.

2. Bring the analysis down to ground level.

To obtain a more detailed analysis of potential cost avoidance, examine the location where the majority of deaths occur, and then obtain data on the associated DRGs and LOS for these deaths, and for other cases (live discharges) with these DRGs at the same location.

This approach can help your team identify actionable strategies and prioritize your roll-out of services to meet the needs and priorities of your hospital. *A reduction in LOS in high cost*

locations (e.g. ICU) by earlier clarification of goals can result in significant cost savings. An example of a DRG report can be found at **http://www.capc.org/building-a-hospital-based-palliative-care-program/financing/estimating-program-volume/drg-analyses.xls/view?searchterm=drg).**

3. Estimate the anticipated volume of palliative care consultations.

First year consult volume will be dependent on the following factors:

- Hospital size and type;
- Acceptance of palliative care as a concept by referring physicians;
- Acceptance of the designated palliative care clinicians as having special knowledge/skills by referring physicians;
- Time availability and daily visibility of the palliative care staff;
- Extent of internal marketing to all health care staff, patients and families;
- Degree of top-down administrative support for palliative care services.

Based on the experience of over 500 hospitals that have completed CAPC/PCLC training, estimates for consultation volume are:

1st year of full operation/fully staffed = 0.5 - 1.0 new referrals per *Staffed Hospital Bed*
3rd year " " = 1.0 - 1.5 new referrals per *Staffed Hospital Bed*
5th year " " = 1.5 - 2.0+ new referrals per *Staffed Hospital Bed*

Thus, for a hospital with 300 staffed beds, you can expect:

1st year: 150-300 new consults
3rd year: 300-450 new consults
5th year: 450-600+ new consults

These are broad approximations; results will vary depending on the variables outlined above.

4. Estimating Cost Avoidance

Some of the variables that impact cost avoidance include:

- Total consultation volume;
- Whether the PC team is providing assistance in symptom management only (usually no impact on costs), or helping to clarify prognosis and goals of care;
- Percentage of ICU referrals (generally more ICU referrals provide greater opportunity for cost avoidance);
- Payor mix and case based reimbursement rate (greater percentage of case rate, DRG, or capitated cases, as compared to fee-for-service, will mean greater potential for cost avoidance);
- Average post-consultation length of stay—typically this number averages 4-5 days (longer length-of-stay, at lower cost due to palliative care intervention, means greater cost avoidance). **Note:** Some programs do not include LOS beyond 5 days for computing cost avoidance, lest they give themselves a "perverse incentive" for keeping patients in the hospital rather than working diligently to get them discharged;

- Palliative care impact--the degree to which the palliative care team is able to implement their recommendations (greater acceptance of recommendations will mean greater cost avoidance).

Several research reports have been published detailing actual cost avoidance of a population of patients seen by a palliative care consultation service, compared to a control group (1-4). Some of the findings include:

- cost avoidance can be demonstrated;
- cost avoidance is greatest for ICU patients;
- cost avoidance is greatest for patients who die in the hospital compared to patients who survive to discharge.

Comparison across the studies is difficult due to different methodology for computing cost savings and different patient populations. However, for planning purposes, we recommend the following as a reasonably conservative assumption:

Use an average post-consultation direct cost avoidance estimate of $350/day; this is based on an expectation that in the first year of operation, the consult team will see an equal number of patients who die in the hospital to those who are discharged.

1st year program: 150-300 referrals x 4 days x $350 = $210,000 - $420,000
3rd year program: 300-450 referrals x 4 days x $350 = $420,000 - $630,000
5th year program: 450-600 referrals x 4 days x $350 = $630,000 - $840,000

This estimate is useful for a business planning document that projects future impact because it is based on extensive experience of other programs. It can also be internally validated after your program is up and running.

There are other positive impacts of palliative care. You should identify those that are relevant and important in your setting, and estimate or measure where possible. However, some of these are difficult to measure, given the difficulty of developing a baseline or comparison group within a single hospital. Examples of other potential benefits:

- Reduction in the % of patients who die in the ICU and/or reduction in ICU bed-days as a % of overall bed days (earlier transfer out of ICU to general med/surg beds) and/or avoidance of escalating to the ICU from general med/surg beds or ED.

  Note: here the potential cost avoidance will occur only if a) the daily ICU census is near 100% and b) it can be anticipated that well-reimbursed and or short length- of-stay patients would fill those beds, patients who otherwise would have gone to a different hospital due to the lack of ICU bed capacity.

- Improved patient and family satisfaction, which could theoretically translate into improved market share;
- Improved referring physician satisfaction;
- Improved nurse satisfaction and nurse retention.

5. What to do when the hospital leaders "push back" on the cost-avoidance argument?

Hospital finance staff and leaders are more accustomed to evaluating the cost-benefit of programs that generate new revenue, or which reduce purchasing costs. They are confronted with a growing number of proposals that use the cost avoidance argument. Their concerns include:

- Your reliability – will the program achieve the projections?
- Potential offsets to revenue – will the impact of palliative care lead to a reduction in fee-for-service and/or outlier revenue, or revenue generated from procedures (e.g. tracheostomy for DRGs involving ventilator support)?

Strategies to counter these legitimate concerns are:

1. Legwork to build support – demonstrate that you have built the case (medical, patient/family satisfaction, and financial) for palliative care among the physician and non-physician leadership (nursing, social service, chaplaincy, pharmacy).
2. Clarify your implementation plan – identify where you will start your program (hospital wide, ICU only, etc.), be explicit about your marketing plan to referring physicians, and provide realistic baseline data on cost avoidance and patient volume so that you truly understand the program's potential impact.
3. Understand the true costs of *not* starting a palliative care program - review the costs and bed use patterns of patients who die in the hospital (see 1. above)—hospital decision makers often focus on the global activities of the hospital and may not realize the disproportionate negative financial impact of this relatively small patient population.
4. Listen to your administrators concerns - seek their partnership in developing a methodology that is credible.

A more complete discussion of cost avoidance and financing a hospital-based palliative care program is available at:
http://www.capc.org/building-a-hospital-based-palliative-care-program/financing/

References

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