The additional mean cost of pemetrexed plus cisplatin therapy, over cisplatin monotherapy, was A$14,032.78 per patient. The mean and median survival gain with pemetrexed plus cisplatin therapy was found to be 0.191 and 0.233 years, respectively, relative to cisplatin monotherapy, over the 27-month period of observation. The cost per life-year saved was A$73,470.04 for mean and A$60,226.52 for median incremental survival. CONCLUSION: This survival benefit is a highly patient-relevant outcome. This economic evaluation found that pemetrexed plus cisplatin therapy offers an acceptable cost-effectiveness ratio for a small population of MPM patients in Australia.

CN3

ONCOLOGISTS’ COST-EFFECTIVENESS THRESHOLDS FOR NEW CANCER THERAPIES

Nadler E1, Eckert B2, Neumann P3  
1Dana-Farber Cancer Institute, Boston, MA, USA; 2Harvard University, Boston, MA, USA

OBJECTIVES: The FDA’s approval of Avastin, Erbitux and other novel agents has generated debate about the high cost and relative value of new cancer treatments. We sought to understand whether oncologists consider the therapies they employ to be cost-effective and to ascertain oncologists’ cost-effectiveness thresholds for such therapies. METHODS: We surveyed 139 oncologists at two large academic hospitals in Boston. We asked respondents to provide estimates for the cost and effectiveness of Avastin (without appealing to published data) and whether they thought the treatment offered “good value.” We also asked respondents to judge how large a gain in life-expectancy would justify a hypothetical new cancer therapeutic that cost $70,000 per year more than standard care. We used this information to calculate implied cost-effectiveness thresholds (in QALYs) for each respondent. Finally, we asked respondents about the role of cost in their treatment recommendations. RESULTS: Ninety oncologists (65%) completed the survey. Cost-effectiveness thresholds, derived from the hypothetical scenario, averaged over $300,000/QALY. Oncologists’ estimates of the cost and survival benefit of Avastin implied a cost-effectiveness ratio in the same range, yet only 25% of oncologists believed Avastin offered good value. Oncologists who indicated a greater sensitivity to costs in their prescribing behavior had significantly lower cost-effectiveness thresholds. CONCLUSIONS: Oncologists in an academic medical setting had implied cost-effectiveness thresholds that were roughly 6 times higher than a commonly cited standard in the U.S. of $50,000/QALY. When asked about specific scenarios, however, oncologists implied that very small gains in life expectancy were not worth the additional costs. Further, most oncologists were dubious about whether a recently approved therapy offered “good value.” As expensive new cancer therapies enter clinical practice, oncologists’ views about their role as practitioners may increasingly conflict with their beliefs about the value offered by these therapies.

CN4

EXPRESSIVE VALUATION OF PASS-THROUGH TECHNOLOGIES UNDER MEDICARE: IS IT FEASIBLE OR DESIRABLE?

Mohr P1, Paschera L1, Kornfield T1  
1Centers for Medicare and Medicaid Services, Baltimore, MD, USA

OBJECTIVES: To encourage early adoption, Medicare pays a temporary premium for selected new technologies (which are called pass-through technologies) in the outpatient setting. Implicit decisions are being made that the additional money spent for these pass-through technologies is worthwhile to the Medicare program. The goal of this study was to examine how implicit decisions being made for pass-through technologies compare with explicit cost-effectiveness criteria. METHODS: We selected as case studies four technologies—two pass-through devices (embolic capture devices and silicone oil for retinal tamponade) and two pass-through drugs/biologicals (pegfilgrastim, triptorelin pamoate)—that Medicare estimates will account for the bulk of pass-through spending for 2004. We examined whether cost-effectiveness literature existed at the time of pass-through approval and critically examined its quality. We then used publicly-available data (e.g., Medicare claims and payment rates) to supplement available studies and examine cost-effectiveness thresholds from Medicare’s perspective. RESULTS: Cost-effectiveness studies were available for two of the four case study technologies at the time of their application review. The quality was variable. These studies, later publications, and our own analyses suggest some case study technologies could be cost-effective in at least a subset of the Medicare population in which they are used. CONCLUSIONS: Cost-effectiveness information is sometimes available early in the life cycle of a technology and may provide additional useful information about whether and for which subpopulation Medicare should pay a premium for a new technology. Policy analysts must evaluate cost-effectiveness information critically, however, and may need to conduct supplemental analyses as a result. Medicare payment decisions do not now reflect any judgment about the value of that technology in terms of clinical benefit for incremental cost. The challenge to Medicare is to be able to limit pass-through payments to only those populations for whom there is proven value.

Methods & Concepts

WHY DO DIFFERENT MODELS COME TO DIFFERENT CONCLUSIONS?: A STUDY OF 8 COST-EFFECTIVENESS ANALYSES COMPARING COX-2 SPECIFIC INHIBITORS (COXIBS) AND NON STEROIDAL ANTI-INFLAMMATORY DRUGS (NSAIDS)

Riseborough NA1, Drummond M2, Neumann P3, Lising A4, Mittmann N5, Niculescu L6  
1Hope Research Centre, Toronto, ON, Canada; 2University of York, York, United Kingdom; 3Harvard University, Boston, MA, USA; 4Dymaxium Inc, Toronto, ON, Canada; 5Pfizer Inc, New York, NY, USA

OBJECTIVES: To critically evaluate published cost-effectiveness (CE) models and identify model elements contributing to the large variability in results. METHODS: A literature search of MEDLINE and EMBASE from 1985–2004 identified eight English-language CE models comparing coxibs to a nonsteroidal anti-inflammatory drug (NSAID)-alone regimen. Two studies were excluded due to unavailable model input data. Model time horizons ranged from six months to lifetime, and primary outcomes ranged from gastrointestinal (GI) events averted to life-years gained and quality-adjusted life-years gained. Common elements across models were minor GI discomfort/dyspepsia, moderate GI events/symptomatic ulcer, and severe GI events. Only two of the analyses included cardiovascular side effects. To compare model inputs we standardized all analyses to a six-month tree structure with the three GI side effects. Study probabilities were converted to six-month rates where necessary and costs were converted to SUS using the purchasing power parity index. Cost offsets between coxibs and NSAIDs were calculated by multiplying the probability of the GI event by cost per event. RESULTS: The relative price used for coxibs compared with NSAIDs differed widely across studies (median over six months, $156; range, $14–$387). Differences in total GI event cost offsets were small (median, –$41; range –$53 to –$18). Moderate GI events provided the greatest GI event cost