Poster Presentations (Sat, 24 Sep, 09:30–12:00)
Public Health, Health Economics, Policy

3600 POSTER

Costs of Adjuvant Chemotherapy With Oxaliplatin in Stage III Colon Cancer – Comparing the Three Schemes Standards: FOLFOX-4, FLOX and XELOX

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Introduction: The adjuvant chemotherapy for stage III Colon Cancer is based in oxaliplatin for 6 months. FOLFOX-4, FLOX and XELOX were very similar results in efficacy and safety. There are some differences in total doses and form of the application. We present the differences in direct and indirect costs of the 3 schemes.
Material and Methods: We analyzed 130 patients with stage III Colon Cancer treated in the NCI of Mexico, from January 2004 to August 2010. The body surface mean was 1.62 and the costs were calculated based on current prices-government in November 2010. We considered the following costs: (1) Chemotherapy/BS, (2) Prophylactic anti-emetics, (3) Use of central catheter (patients with XELOX, not used catheter), (4) Medical offices, (5) Laboratory tests, (6) Adverse events grade 3–4 [using the frequencies reported by Andre T 2004 (FOLFOX), Kuebrer JP 2007 (FLOX) and Schmoll HJ 2007 (XELOX)] and (7) Number of visits to the Hospital and indirect costs at each visit (cost for visit was $39.68 US). All costs are reported in US dollars (12.50 Mexican pesos = 1 US dollar).
Results: The estimated costs incurred by adjuvant chemotherapy regimen are reported in the table.

	Costs		
	FLOX	FOLFOX-4	XELOX
Chemotherapy	$ 13,348.98	$ 13,684.86	$ 15,365.12
Anti-emetics	$ 325.92	$ 432.68	$ 287.78
Subclavian catheter-maintenance	$ 237.24	$ 237.24	$ 0.0
QT – application	$ 763.58	$ 1,432.83	$ 352.17
Blood tests	$ 422.44	$ 563.20	$ 375.52
Medical offices	$ 405.36	$ 526.88	$ 364.80
Adverse events (gde 3–4)	$ 726.51	$ 568.15	$ 370.65
Hospital visits (number)	40	61	17
Indirects costs for visit	$ 1,587.20	$ 2,420.48	$ 674.56
Total	$ 17,817.23	$ 19,866.32	$ 17,790.60

Conclusion: Of the two most popular schemes FOLFOX and XELOX, the FOLFOX scheme was more expensive with the highest number of hospital visits. The scheme XELOX is more practice, less expensive, less visit at the hospital with less impact on lifestyle.

3601 POSTER

Managed Clinical Network (MCN) Gynaecology – Improved Treatment of Ovarian Cancer in the North of the Netherlands

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Objective: Increasing the disease free, overall survival and quality of life for patients with ovarian cancer through optimally performed surgical procedures and treatment at 16 hospitals in the North of the Netherlands.
Background: Ovarian cancer (ca. 150 patients/year in the 16 hospitals) is the most frequent cause of death among gynaecological malignancies. As a result of the absence of specific symptoms, 70% of patients are diagnosed with advanced disease. Median progression free survival: only 18 months. Accurate surgical staging and/or optimal debulking surgery are important prognostic factors for disease free and overall survival. Adequate surgical staging for early stage ovarian cancer and optimal debulking surgery in advanced disease is best performed by a gynaecologic oncologist. In our region with 16 hospitals, there are 4 gynaecologic oncologists, working in the University Medical Center Groningen (UMCG).
Methods: In 2008 a Managed Clinical Network (MCN) was formed to reach the highest quality level of care for all ovarian cancer patients in the North. As part of the MCN all participating hospitals signed a contract that they would actively follow up the agreements within the MCN.
An important agreement is that every patient with a high likelihood of having ovarian cancer needs to be discussed with a gynaecologic oncologist, presented in a multi site and multi disciplinary tumour board, and registered in a secure webbased database. In this multi disciplinary board a patient tailored strategy is chosen. Based on clinical impression and risk of malignancy index two decisions will be made. First, whether or not a gynaecologic oncologist needs to be involved in the surgical procedure. The second issue is to perform the surgery on location or to refer the patient to the expert center (UMCG).
Results: Regional consensus was achieved on the quality standards and process of care for ovarian cancer patients. The implementation process started in September 2008. Within half a year most of the targets were reached. Using a web based database, patient characteristics, treatment procedures and final outcome of treatment are being monitored. One of the results in this network of 16 hospitals is the increase in percentage of surgery performed by one of the 4 gynaecologic oncologists from 62% in 2007 to about 90% in 2011.
Conclusions: The results in this project show that the method of obligatory agreements within a Managed Clinical Network, even with 16 hospitals, can be successful. Complex low-volume tumours often can not be treated on the highest quality level in every hospital. The MCN-concept makes it possible to develop uniform patient-pathways for all participants in which centralised decision making on treatment takes place for every patient, whereas parts of the care (high volume – low complex) take place in the hospital nearest to the home of the patient, and other parts of treatment (low volume – high complex) for quality reasons is concentrated in an expert center.

3602 POSTER

The Number Needed to Treat (NNT) as a Measure of Incremental Drug Benefit: Denosumab Vs. Zoledronic Acid for the Prevention of Skeletal Related Events (SREs) in Castration-Resistant Prostate Cancer (CRPC)

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Background: Intravenous zoledronic acid (ZOL) is the standard of care for the prevention of SREs in advanced prostate cancer. However, monthly subcutaneous denosumab (Dmab) was recently approved as an alternative to ZOL based on the results of a large randomized trial which demonstrated a prolongation in median time to first SRE (HR = 0.82, p = 0.008). This translated to a 4.7% (p = 0.008) absolute reduction in SREs in favour of Dmab over the study period. The challenge for clinicians and payers is how to reconcile the benefits of Dmab with the cost, which is approximately twice that of ZOL in the USA. NNT represents the number of patients that need to be treated in order to avoid one additional event, and is often used in order to make clinical judgement in relation to the efficacy of therapies. In this statistical analysis, the NNT approach was used to assess the incremental benefit of Dmab over ZOL for the prevention of SREs in men with CRPC.
Methods: The pivotal phase III randomized trial of Dmab vs. ZOL in CRPC was reviewed (Fizazi, Lancet 2011). As an alternative to ZOL, the NNT with Dmab to avoid any SRE over 41 months (trial end) of continuous therapy was determined. NNT by type of SRE was also estimated. These consisted of pathologic fractures, radiation to bone, spinal cord compressions and surgery to bone. The calculated NNT represents the incremental benefit provided by Dmab over Zometa therapy.
Results: To avoid a single SRE over 41 months of continuous therapy with Dmab, approximately 22 patients need to be treated. To avoid a single fracture, radiation to bone, spinal cord compression and surgery to bone, 163, 37, 96 and 317 patients need to be treated with Dmab.
Conclusion: The NNT approach is a simple and effective method to express the findings in a clinically meaningful way. In this analysis, the incremental benefit of Dmab can only be realized when a minimum of 22 patients are treated for a long duration. In order to avoid a single fracture, 163 patients need to be treated with Dmab for 41 months. Additionally for those SREs with the most severe clinical and economic burden to patients and society, ie surgery to bone and spinal cord compression, the NNT is high; 96 and 317 patients would need continuous treatment with Dmab to avoid a single event. This marginal incremental benefit needs to be considered alongside the high cost of Dmab.

3603 POSTER

The Number Needed to Treat (NNT) as a Measure of Incremental Drug Benefit: Denosumab Vs. Zoledronic Acid for the Prevention of Skeletal Related Events (SREs) in Patients With Other Solid Tumours or Multiple Myeloma

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Background: Intravenous zoledronic acid (ZOL) is used for the prevention of SREs in patients with advanced cancer and multiple myeloma (MM). However, it was recently demonstrated in a large randomized trial that monthly subcutaneous denosumab (Dmab) was comparable to ZOL in median time to first and subsequent SREs (HR = 0.90, p = 0.14). This translated to a 4.9% (p = NS) absolute reduction in SREs in favour of Dmab over the two year study period. The challenge for clinicians and payers is how to reconcile the benefits of Dmab with the cost, which is approximately