further investigation as a way to detect, characterize, and address bias in retrospec-

PRM22 METASTASIS-FREE SURVIVAL AND OVERALL SURVIVAL IN PROSTATE CANCER Literature Review by

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OBJECTIVES: In clinical trials of early-stage prostate cancer, demonstration of an overall survival benefit is challenging because of prolonged patient survival. While the development of metastasis is a major milestone in the disease, patients are interested in understanding the clinical relevance of metastasis-free survival (MFS) as a surrogate endpoint and its relationship with long-term outcomes, in particular OS. The objective of the current study was to identify empirical evidence evaluating MFS in patients with prostate cancer. METHODS: A structured literature review was conducted in PubMed (1999–2014) to identify clinical trials in prostate cancer evaluating MFS as a primary endpoint and clinical and observational studies that evaluated the association between MFS and OS. RESULTS: Three published clinical trials used MFS as a primary endpoint. The studies employed varying definitions for MFS (e.g., bone metastasis only or bone and soft tissue metastases), and the studies reported differences in OS outcomes. The studies compared MFS and OS outcomes were significantly improved with radiotherapy, and clinical and observational studies found that patients with MFS had a lower risk of adverse events. CONCLUSIONS: Evidence evaluating MFS in patients with prostate cancer has demonstrated that bone MFS may be a prognostic factor for OS in prostate cancer. The remaining two studies demonstrated that time to metastasis was significant when associated with prostate cancer-specific mortality. CONCLUSIONS: MFS has been used as the primary endpoint in several prostate cancer studies, providing support for the clinical relevance of this outcome. Current evidence from the literature suggests an association between MFS and OS, however additional research is needed to further investigate this relationship.

RESEARCH ON METHODS – Cost Methods

PRM23 CONTRASTING COST-EFFECTIVENESS RESULTS DERIVED FROM CONTEMPORARY SETS OF ALTERNATIVE RISK EQUATIONS IN TYPE 2 DIABETES Efficacy

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OBJECTIVES: The IMS CORE Diabetes Model (CDM) is a widely published and validated health-economic simulation tool. The model uses UKPDS68 and UKPDS82 risk equations (REs) to predict events and has been updated to include REs from the Swedish-National-Diabetes-Registry (S-NDR) and the ADVANCE-Risk-Engine (A-RE). The objective of this study was to compare and contrast cardiovascular (CV) incidence and cost-effectiveness (CE) across these four REs. METHODS: Lifetime analyses comparing the CE of metformin + sulphonylureas (M+S) versus metformin + DPP-4 (M+D) was undertaken using the CDM. Basal insulin therapy was applied to both arms at HbA1c threshold levels of 7.5%. Fallback data for dual therapy was sourced from a published mixed treatment comparison, HBAlc and BMI change at one-year of -0.8% and 0.199kg/m2 (M+S) versus -0.79% and 0.192kg/m2 (M+D), respectively. Hypoglycemia rates were taken from the same systematic review. US 2012 costs were used and discounting was applied at 3.0%. RESULTS: In the base analysis (UKPDS82) predicted CV incidence for myocardial infarction, stroke, ischemic heart disease, and all-cause mortality was 31.42%, 15.59%, 12.85% and 21.01%, respectively, for patients treated with M+D and 31.39%, 15.23%, 12.51% and 21.26% for patients treated with M+S. This compared to 26.72%, 14.31%, 17.96% and 12.74% (M+S) and 26.02%, 13.9%, 17.51% and 21.26% (M+D) using UKPDS82 REs; 30.19%, 52.93%, 6.42% and 22.6% (M+D) and 29.7%, 53.98%, 6.23% and 6.5% (M+S) using S-NDR REs and 42.62%, 15.05%, 15.98% and 19.56% (M+D) and 42.17%, 15.1%, 11.97% and 20.46% (M+S) using A-RE REs. Incremental cost per quality adjusted life years were estimated at $78,537 (UKPDS86); $77,594 (UKPDS82); $70,054 (S-NDR) and $74,783 (A-RE). CONCLUSIONS: There was a noteworthy difference in predicted CV incidence across the four equations; however, CE results were relatively stable. Consequently, choice of RE appears unlikely to significantly impact CE.

PRM24 COST-BENEFIT ANALYSIS OF WHOLE BODY BONE SPECTRUM IMAGING IN THE PRE-TRANSPLANT ASSESSMENT OF ADULT PATIENTS, BEARERS OF HEPATITIS C, ULTRASONOGRAPHICALLY TREATED FOR A LIVER TRANSPLANT WAITING LIST FROM DEAD DONORS, IN A REFERENCE HOSPITAL IN THE SOUTH OF BRAZIL

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OBJECTIVES: The first time this investigation was undertaken was in 2001 requesting whole-body bone scintigraphy in early-stage HCC adult patients as a requisite for inclusion in the waiting list for HTx from a deceased donor, according to a national Brazilian law. Currently, the Brazilian program includes mandatory bone scintigraphy as a requisite for selecting patients to be included on hepatic transplantation list. Previous studies, however, have shown that routine scintigraphy is not cost-effective and generates unnecessary Health System costs. METHODS: We retrospectively analyzed 52 medical files of early-stage HCC patients who underwent hepatic transplantation, 187 of whom were subjected to pre-transplantation bone scintigraphy. The most common etiology was hepatitis C viral infection, the most common indication for LT was Child B, and 78% of the patients met the Milan criteria. None of the 187 scintographies was positive for metastasis. The 1- and 5-year post-hepatic transplantation survival rates among patients subjected to bone scintigraphy were 81% and 69%, respectively. Patients not subjected to scintigraphy were 78% and 62%, respectively (p = 0.25). The 1- and 5-year post-HTx recurrence rates among patients subjected to bone scintigraphy were 4.8% and 10.7%; those among patients not subjected to scintigraphy were 2.9% and 10.3% respectively (p = 0.46). RESULTS: The cost generated by the current evaluation policies, US $27,582, did not result in the detection of any sub-clinical metastasis and therefore failed to provide positive cost-effectiveness. CONCLUSIONS: Clinical evidence has demonstrated that bone scintigraphy did not provide any additional information about patient selection since the incidence of metastasis in early stages is very low. In our cohort, the use of scintigraphy in the assessment of patients with early stages of HCC and within the Milan criteria, included in a liver transplant list by dead donor, in a center in the south of Brazil, had zero benefit.