



Abstract S92 Figure 1 Kaplan-meier survival curve according to disease type

S93 **NOVEL BIOMARKERS IN PROGNOSTICATION AND TREATMENT MONITORING OF MALIGNANT PLEURAL MESOTHELIOMA- A SYSTEMATIC REVIEW**

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Introduction Pemetrexed with cisplatin is the only UK licensed treatment for malignant pleural mesothelioma (MPM) following an RCT that demonstrated a survival advantage of 2–3 months and response rate of 30–40% (Vogelzang, 2003). Radiological markers of treatment response and prognostication have significant limitations due to the morphology of the disease. Therefore, serum or pleural fluid biomarkers that could act as an adjunct to radiological assessment would be of significant value. The aim of this systematic review was to collate and summarise the literature relating to this topic.

Methods The PubMed and EMBASE databases were interrogated using pre-defined search strings (with English language restrictions) up to 30 June 2016, with no early date limit applied. Two independent researchers (DA and FH) read the abstracts and, using the Quality in Prognostic Studies (QUIPS) tool, selected the studies to be included in the final review.

Results From the 795 abstracts generated by the search strategy, 41 relevant studies were identified. Serum mesothelin was the most studied biomarker with 20 studies assessing its role in prognostication. A high serum mesothelin at baseline was thought to be an independent marker of poor prognosis in epithelioid MPM, however, recent studies suggest this is because levels

increase with tumour stage and bulk. Six studies assessed serial serum mesothelin measurements during chemotherapy and all showed that it can be a proxy for treatment response and prognosis (see table). Pleural fluid mesothelin was not a useful prognostic biomarker in the 4 relevant studies. Serum Osetopontin (OPN) was the topic of 5 studies and appeared to offer prognostic information at baseline even after adjustment for covariates. Other serum or pleural fluid biomarkers such as fibulin-3, megakaryocyte-potentiating factor, hyaluronic acid and VEGF have shown prognostic utility in individual papers but are yet to be reproduced in large cohort studies.

Discussion The literature suggests that a falling serum mesothelin following chemotherapy correlates with treatment response and improved overall survival. This could be of significant value to clinicians in deciding ongoing treatment, but a larger prospective study is required before its inclusion in routine clinical practice.

S94 **BIOLOGICAL MARKERS OF FAVOURABLE PROGNOSIS AND SUCCESSFUL PLEURODESIS FOR MALIGNANT PLEURAL EFFUSION**

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