

**Clinical Management Protocol– Malignant Mesothelioma**

**Protocol for Planning and Treatment**

The process to be followed in the management of:

**MALIGNANT MESOTHELIOMA**

**Patient information given at each stage following agreed information pathway**

**1. DIAGNOSIS**

Patients may present with chest pain, dyspnoea, cough, and/or pleural effusion. Advancing disease causes respiratory insufficiency; chest wall pain; cardiovascular complications from pericardial effusion and invasion of the heart; ascites and growth in peritoneum; and general constitutional deterioration.

An accurate history of asbestos exposure should be sought.

**2. STAGING**

As per IMIG TNM Staging 1994

**3. HISTOPATHOLOGY**

Subclassified into:

Epithelioid  
Sarcomatoid  
Biphasic

Histological appearance appears to be of prognostic value, with most clinical studies showing that epithelial mesotheliomas have a better prognosis than sarcomatoid mesotheliomas.

**4. INVESTIGATIONS**

Chest X-ray usually shows a pleural effusion or pleural thickening.

CT thorax and upper abdomen delineates the extent of disease far more accurately than chest radiography.

Because many patients with mesothelioma present with a pleural effusion, they usually undergo thoracocentesis and pleural fluid pathology is positive in about one third of cases. It is difficult to differentiate metastatic adenocarcinoma from mesothelioma with cytology alone.

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If the pleural space is totally or partially free, thoracoscopy is a preferred approach to diagnosis because is most likely to yield a diagnosis, can be done by a videoscopic assisted procedure (VATS) which is a limited surgical procedure, allows direct examination of clinically abnormal tissues and permits effective pleurodesis, and provides the pathologist with a good specimen obtained from an involved area.

If the pleural space is obliterated by adhesions or tumour, diagnostic limited thoracotomy may be required.

### 5. SURGERY

This should only be done in the context of a clinical trial.

Patients with epithelioid histology, clinical stage I or II disease, negative mediastinal nodes at mediastinoscopy and minimal costophrenic recess angle disease may be considered for trial entry.

### 6. RADIOTHERAPY

#### Palliative radiotherapy:

##### Indications:

Palliation of local symptoms particularly chest wall pain  
Palliation of painful chest wall masses

##### Dose:

8Gy single fraction or 20Gy in 5 fractions over 5-7days

### 7. CHEMOTHERAPY

All patients with mesothelioma and performance status 0-1 should have the opportunity to discuss the merits and limitations of chemotherapy with a specialist experienced in the use of chemotherapy for malignant mesothelioma. Palliative chemotherapy may be offered following this discussion.

#### 1<sup>st</sup> line palliative chemotherapy:

##### Indications:

PS 0-1 and selected 2  
Adequate cardiac and renal function (GFR>50ml/min)  
Non-resectable malignant mesothelioma.

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Response monitoring:

Clinical assessment and chest X-ray each cycle  
CT thorax after 2 cycles

Continue chemotherapy only if evidence of ongoing symptomatic benefit and no radiological or clinical evidence of progression.

**2<sup>nd</sup> line palliative chemotherapy:**

More than 6 months progression free:

If patient responds to first line chemotherapy and is progression free for more than 6 months, further chemotherapy can be considered at time of progression if patient remains of good performance status (PS0-1), using Carboplatin and pemetrexed.

Less than 6 months progression free:

If patient responds to first line chemotherapy and is progression free for less than 6 months, further chemotherapy can be considered at time of progression if patient remains of good performance status (PS0-1) Carboplatin and Vinorelbine.

Response monitoring:

Clinical assessment and chest X-ray each cycle  
CT thorax after 2 cycles

Continue chemotherapy only if evidence of ongoing symptomatic benefit and no radiological or clinical evidence of progression

CONSIDER CLINICAL TRIALS

**8. OTHER SUPPORTIVE MEASURES**

Ensure:

Early referral to palliative care services.  
Referral to benefits officer  
Referral to Tayside Action for Asbestos

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**9. TREATMENT DEFINITIONS**

1<sup>st</sup> line Regimen:

Day 1 pemetrexed 500mg/m<sup>2</sup> IV  
Day 1 cisplatin 75mg/m<sup>2</sup> IV

Every 21 days for up to 6 cycles depending on response and toxicities

In those with poor renal function (GFR <50 ml/min) Carboplatin should be used instead of Cisplatin at a dose of AUC5 (EDTA GFR)

Pre-medication:

Dexamethasone 4 mg BD PO days -1, 0, and 1  
Folic acid 400 micrograms PO starting 7-14 days pre-chemotherapy and continuing until 3 weeks after last dose of chemotherapy.  
Vitamin B12 1000micrograms IM 7 days pre-chemotherapy and then every 9 weeks (dose should be doubled in the malnourished).

2<sup>nd</sup> line Regimen:

Carboplatin AUC 5 iv d1 q21 days  
Pemetrexed 500mg/m<sup>2</sup> IV d1 q 21 days

Pre-medication:

Dexamethasone 4 mg BD PO days -1, 0, and 1  
Folic acid 400 micrograms PO starting 7-14 days pre-chemotherapy and continuing for 4 weeks  
Vitamin B12 1000micrograms IM 7 days pre-chemotherapy and then every 9 weeks

Other 2<sup>nd</sup> line Regimen:

Carboplatin AUC 5 iv d1 q21 days q 21d  
Vinorelbine 25mg/m<sup>2</sup> iv d 1 q 21d  
Vinorelbine 60mg/m<sup>2</sup> d8 q 21d

Author: ..... Signature: ..... Date: .....

Chair: ..... Signature: ..... Date: .....  
(on behalf of OHMMG)

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