Establishing a Molecular Tumour Board

What have we achieved?

We've established a Molecular Tumour Board (MTB) to provide a new forum which brings together the relevant clinical and laboratory expertise to help interpret the highly complex findings of whole genome analysis on tumours.

The MTB meets weekly, and has a membership of:

Medical oncologist

Cellular pathologist

Consultant clinical scientist in molecular pathology

Consultant clinical geneticist

Clinical scientists in molecular genetics/ cytogenetics

Genomic technologist

What problem does it solve?

In cancerous tumour analysis, we don't always understand the clinical impact of the reported variants. There are many genetic changes present in each tumour and although not all are reported back to us, we need to try to work out which changes might be important and potentially amenable to treatment.

Sometimes the input of a specialist clinical geneticist is required if changes are detected in the germline DNA (from peripheral blood) that might represent an inherited predisposition to cancer in that patient, affecting not just the cancer cells but all cells. This finding has potential implications not only for the patient but also for their family, and is likely to require further laboratory work and discussion with the patient.

Why are we proud of this achievement?

The MTB provides an educational function for clinicians, who share their expertise in a multidisciplinary setting to achieve clinical results. It provides the potential to expand the diagnosis or reissue results with new findings.

Why is Wessex GMC doing so well in this area?

We're developing links to disease site-specific multidisciplinary teams across our region.

We review one patient every 20 minutes during MTB sessions!

What impact has this had on patient care?

The Molecular Tumour Board provides patients with an enhanced diagnosis, and a greater understanding of their cancer via additional laboratory analysis. This translates into more knowledge about potential inherited implications for their disease, and whether this has an impact on their family.

Additional clinical analysis improves options for targeted treatment, access to specific trials, and better outcomes for prognosis and quality of life.

91
WGS reports received to date

2
initial reports reissued with germline findings

3
patients reviewed at each 60 minute weekly meeting

67
patient reports reviewed to date

@WessexGMC

Genomics england

Wessex Academic Health Science Network

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