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Von Hippel Lindau (VHL) – OMIM #193300

INTRODUCTION

Von Hippel-Lindau syndrome (VHL) is an autosomal dominantly inherited familial cancer syndrome. It is characterised by a variety of malignant and benign neoplasms, most frequently renal cell carcinoma (RCC), phaeochromocytoma, pancreatic tumours and retinal, cerebellar, and spinal hemangioblastomas. Age related penetrance is seen in those with VHL, with ~90% of individuals showing clinical symptoms by age 60 years. The condition is caused by pathogenic variants in the tumour suppressor gene *VHL* (3p26-25). Approximately 20% of individuals have no family history of VHL and present as new cases due to *de novo VHL* gene changes.

TESTING

Diagnostic:	Clinically affected individuals.
Presymptomatic:	Relatives of patients who have had a pathogenic variant identified.
Prenatal:	Prenatal testing is not usually requested.

REFERRALS

- All UK diagnostic referrals should be referred through or in collaboration with Clinical Genetics departments.
- All presymptomatic referrals must be referred through Clinical Genetics departments.
- Requests for presymptomatic testing should either be discussed with the laboratory in advance or be accompanied by details regarding the pathogenic variant known to be in the family.
- Prenatal requests are only accepted from Clinical Genetics and must be discussed with the laboratory in advance of sample receipt.

STRATEGY & TECHNICAL INFORMATION

- Gene screening for diagnostic referrals is undertaken by fluorescent Sanger sequencing of the entire coding region and intron/exon boundaries of the *VHL* gene (exons 1-3) together with dosage analysis by multiplex ligation-dependent probe amplification (MLPA) to look for gene rearrangements.
- When a pathogenic variant has been identified in an individual, subsequent testing of family members (presymptomatic or diagnostic confirmation) involves testing for the familial variant only.

TARGET REPORTING TIMES

Diagnostic test:	8 weeks
Presymptomatic/Familial Mutation test:	10 days

N.B. Details are correct for the date of printing only – last updated 29/06/2015