Genetics and Genomics Education
Australia

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Genetics and genomics resources for clinicians and researchers

Health Topics
- Alcohol Guidelines
- Complementary medicines
- Electronic cigarettes
- Genetics and Genomics
- Genetics and genomics resources for consumers
- Genetics and genomics resources for clinicians and researchers
- Health effects of water fluoridation
- Indigenous health
- Nutrition
- Obesity and overweight
- Parenting and child wellbeing
- Lead blood levels
- Talking with your health professional
- Water Quality and Health
- Wind Farms and human health

The following resources have been developed by NHMRC to provide information and advice to clinicians and researchers on genetics and genomics and human health:

Clinical Utility of Personalised Medicine
Clinical Utility of Personalised Medicine provides an overview of the role of genomics in personalised medicine, and its potential to improve health care. The document seeks to support health professionals in understanding the applications, utility and limitations of personalised medicine in clinical care.

Medical Genetic Testing: Information for Health Professionals
Medical Genetic Testing: Information for Health Professionals provides information for use by health professionals involved in genetic testing. It supports the health professional in assisting patients with genetic tests and interpreting results in the context of clinical decision making.

Principles for the Translation of 'Omics'-Based Tests from Discovery to Health Care
The NHMRC Principles for the Translation of 'Omics'-Based Tests from Discovery to Health Care are designed to assist researchers and clinicians in translating omics-based discoveries into validated tests that are clinically useful.

Discussing Direct-to-Consumer Genetic DNA Testing with Patients: A Short Guide for Health Professionals
Discussing Direct-to-Consumer Genetic DNA Testing with Patients: A Short Guide for Health Professionals provides health professionals with information to assist when patients present with Direct-to-Consumer genetic DNA tests or when patients wish to discuss the option of purchasing such tests.

DNA Genetic Testing in the Australian Context: A Statement from the NHMRC
DNA Genetic Testing in the Australian Context: A Statement from the National Health and Medical Research Council provides health professionals and policy-makers information on DNA genetic tests that are used in the diagnosis of medical conditions and about an individual’s risk of developing health-related conditions.

Biobanks Information Paper
The NHMRC Biobanks Information Paper provides information relevant to the establishment, management and governance of biobanks in Australia. The paper identifies best practice in regard to standardisation of biobank policies, practices and procedures based upon national and international literature.
Genetics and genomics resources for consumers

The following resources have been developed by NHMRC to provide information and advice to consumers on genetics or genomics and human health:

The Human Genome

The human genome consists of the complete set of human genetic material that is contained in a human cell. In most human cells, the genetic material is made up of long DNA strands that are packaged into 23 pairs of chromosomes. A genetic disease or condition is caused by one or more genetic changes to the DNA code. This resource provides information about the human genome and how diseases or conditions can be caused by genetic mutations.

Sequencing Your Genome

Rapid advances in DNA sequencing technologies now allow an individual’s whole genome to be sequenced. Although this is still relatively expensive, it is becoming affordable and more readily available. This resource provides information for consumers about what it means to sequence your genome and what personal value it may or may not provide you.

Epigenetics and Health

Epigenetics has recently become a popular explanation for complex diseases of unknown origin. Epigenetics is the study of mechanisms that control how genes are switched ‘on’ and ‘off’ without any changes in the actual DNA of the cells. This resource provides information about epigenetics and health.

Use of Genetic Information in Sport

DNA testing can be used for a number of purposes not related to health. One area of interest is the potential for DNA testing and genetic profiles in sport applications such as talent identification, individualised training programs and avoidance of sport-related injury. This resource provides information about the use of genetic information in sport.

Personalised Medicine and Genetics

Many of us wonder why some people develop cancer while others do not and why a medication might work well for one person but be less effective or cause serious side effects in another. Although these differences are due to a number of important factors such as age, weight and lifestyle, our genetic make-up also plays a part. Using information about genetic predisposition to disease is a key part of personalised medicine. This resource provides information about the use of genetics to predict disease development and to influence decisions about lifestyle choices or to tailor treatment to an individual.

Genetic Discrimination

Discrimination against an individual can appear in many forms. As DNA testing increasingly identifies differences in the genetic make-up of individuals, it becomes possible that people will be discriminated against based on genetic information. This resource provides information to consumers about genetic discrimination and how it applies in law and in health or life insurance.

Medical Genetic Testing: Health Information for You and Your Family

Medical Genetic Testing: Health Information for You and Your Family outlines the key issues that should be considered in relation to genetic testing. This resource provides information to assist people to:

- Understand the basics of DNA, genes and chromosomes;
- Consider whether to undertake medical genetic testing;
- Understand the potential outcomes of the genetic testing process; and
- Find further information and support.

Understanding Direct-to-Consumer Genetic DNA Testing – An Information Resource for Consumers

In recent years, there has been significant increase in the number of Direct-to-Consumer (DTC) genetic DNA tests that consumers can purchase over the internet without the involvement of a doctor. This resource has been developed to help consumers to better understand this type of testing. The NHMRC encourages individuals interested in DTC genetic DNA testing to exercise caution and consult their doctor if they choose to proceed.
HGSA 40TH ANNUAL SCIENTIFIC MEETING

Integrating Genomics into Healthcare

HGSA 40th Annual Scientific Meeting
HOBART, TASMANIA • 6-9 August 2016

On behalf of the Local Organising Committee, we invite you to the Human Genetics Society of Australasia (HGSA) Annual Scientific Meeting to be held in Hobart, Tasmania, Australia on 6–9 August 2016.

The theme for the conference is “Integrating Genomics Into Healthcare”. We plan to explore the ways in which genetics and genomics are changing healthcare including the translation of genomics into diagnostics and targeted therapies as well as the psychosocial impact of genomic medicine on patients, families and communities.

The conference promises to be an exciting meeting with strong scientific content, covering various aspects of human genetics and genomics, including sessions around the following topics:

- Whole exome and genome sequencing for diagnostics and research
- Genetic therapies
- Bioinformatics
- Social and consumer impact
- Clinical phenotyping
Welcome to eviQ

Select links to see the information eviQ has to support health professionals & patients and carers

Secondment opportunity - Expression of Interest

The Cancer Institute NSW is offering a six month secondment opportunity (1 full time or 2 part time) within the eviQ Education team to assist with developing clinical content for the Anti-invasive Drug Administration Course. More information about this secondment opportunity can be found in the Expression of Interest.

For further information, please contact the us on 8374 3633 or email eviqed@eviq.org.au

New on eviQ

Oral Antineoplastic Drugs: Education module for Community Pharmacists

This module will provide information on:

- General principles in cancer treatment
- Handling oral antineoplastic drugs and related wastes
- Oral anti-invasive prescriptions and protocols
- Adverse effects and supportive therapies
- Drug interactions
- Patient education

Click here to start the module.

Downloadable fact sheets for community pharmacists:

- Managing common adverse effects of antineoplastic therapy
- Oral anti-invasive drugs - role of community pharmacists
- Patient information - oral cancer treatment

Translated Patient Information Sheets available!

eviQ has developed some new Patient Information Sheets about cancer treatments and their side effects. We hope that these will be useful for patients receiving cancer treatments, and their families.

The sheets have also been translated into 9 languages: Arabic, Chinese simplified, Chinese traditional, French, Greek, Italian, Korean, Spanish and Vietnamese.

Find out more here.

UPCOMING EVENTS

NSW Rural Health and Research Congress 2015

CINSW are sponsors of the NSW Rural Health and Research Congress which is to be held on the 6th - 8th November 2015. Please click here for more information.
Cancer Genetics

Welcome to the eviQ Cancer Genetics homepage.

Family Cancer Clinics:
For information about family cancer clinics and services in your local area or other areas of Australia and New Zealand please see Family Cancer Services, Centre for Genetics Education NSW Health or the Human Genetics Society of Australasia Find a Genetic Counsellor

New Referral Guidelines
Referral Guidelines for Breast Cancer Risk Assessment and Consideration of Genetic Testing

New Risk Management Protocols
Risk Management for Hereditary Papillary Renal Cell Carcinoma Type 1 (MET Gene)

Review Risk Management Protocols
Risk Management for Li-Fraumeni Syndrome
Risk Management for Gerlin Syndrome/Nevoid Basal Cell Carcinoma Syndrome
Risk Management for Unaffected Male BRCA1 or BRCA2 2 Mutation Carrier
Risk Management for Unaffected Individuals with a Heritable CDH1 Mutation
Risk Management for Lynch Syndrome

Review Genetic Testing Protocols
Genetic Testing for Heritable Mutations in the STK11 Gene

Of interest:
The Cancer Genetics Reference Committee would like to advise they are aware of the following paper; however the group is awaiting further data analysis before making any amendments to eviQ protocols.


- eviQ Cancer Genetics GP Factsheet

- Recommendations for the management of breast cancer in women with an identified BRCA1 or BRCA2 gene mutation or at high risk of a gene mutation - Cancer Australia

BRCA1 and BRCA2 Variants of Uncertain Significance (VUS) - Further information for health professionals

Reference Committee Meetings and Email Notifications:
If you would like to participate in our reference committee meetings or subscribe to receive email notifications of new and updated protocols for Cancer Genetics, please contact us.

Online professional development opportunities for rural health professionals
Breast cancer in the family - what does it mean? is a NEW online module by Cancer Australia, available in October 2012. Developed in collaboration with the Australian College of Rural and Remote Medicine, it addresses the importance of assessing a family history of breast and ovarian cancer in your patients, and identifies risk-reducing strategies for women who are found to be at increased risk.

Utilising innovative online technology, Cancer Australia is increasing opportunities for general practitioners, nurses and other health professionals working in rural Australia to access information about the latest advances in evidence-based breast cancer treatment and care without the need to travel.

Registration is free - access education now
NEW Information and Privacy Commission Guideline

Fact Sheets
Learn about genes, DNA, genetic patterns of inheritance and genetic conditions

Family health history
Find out about the importance of knowing your family health history

Pregnancy
Find out about health pregnancy preparation and testing options during pregnancy

Cancer in the family
Information for those concerned about cancer in their family

Genetic Services
Genetic Counselling Services
Genetic Testing Services
Speciality Services
Laboratory Services

Links
NSW Government
NSW Health
Information for Individuals and Families

Here you will find everything from how to record your own family health history to learning basic facts about genes and DNA. Take a look through the following links for more ...

- Your Family Health History
- Understanding Genetics
- Genetic Conditions
- Pregnancy information and testing
- What is Family Cancer?
- What is Genetic Counselling
- Genetic Support Groups
- Newborn Screening
Resources which are published and printed by the Centre can be ordered online.
Health Professionals

Information and education for GPs and other health professionals

IN THE SPOTLIGHT

MTHFR genetic testing ~ Find out the facts

Useful Resources
Referring to Genetics Services
Genetics in General Practice
Cancer
Pregnancy and Prenatal Testing
Policies and Clinical Guidelines
Learning Opportunities for Health Professionals
Newborn Screening
Pharmacogenomics

Last updated: Mar 24, 2015
Identifying gaps in genomic education:

Genomic education programs

- Target group 1: Clinical Genetics Services

Genomics for Genetic Counsellors workshop Oct 2015

- Adapted from Training in Master of Genetic Counselling program

Clinical Genomic Data Analysis: (Garvan) Dec 2015

- Target group 2: Medical specialists - still planning
- Target group 3: Nurses ++ (germline v tumour testing)
Establish Genomic education section on Centre’s website and GP tab:
- Point of care resources,
- Programs for health professionals and patient information

Partnership with Genetic Alliance Australia:
- Rare Disease support groups
- BRCA Information days