HRCS Review and Guidance Updates

Notes to readers

This document summarises the recommendations for HRCS guidance updates, as developed between 2015-2017. Changes to existing wording is shown in green (with minor rearrangements in blue).

However, given the original text comes from the older version of the HRCS website, many of the embedded hyperlinks will not match those of the new site. Given this document was originally intended for reference only, I have opted to not go through and update them all, unless there is considerable demand to do so.

Best wishes,

Jim Carter

Summary of proposed changes:

Area	Total Amendments	*Minor*	*Major*
General Pages	3	*2*	*1*
Health Categories	13	*8*	*5*
Research Activities	9	*9*	*0*
Guidance Topics	11	*7*	*4*
New Guidance Topics	8	*0*	*8*

Main advice / general pages: two amendments, addition of 'common mistakes'

The review has prompted two main general advice updates:

1) Percentages: confront the issue of non-standardised percentages being used, highlighted in the 2014 analysis and to better emphasise that HRCS is based on set rules and equal percentage allocations.
2) Health Categories: small update to reflect the updates to Generic Health Relevance and associated Case Studies and Sequelae guidance topics.

In addition, the review recommends the content of the 'Common Mistakes' booklet be added to the website. This document is used in training but is poorly sited and not given sufficient weight to aid coders on the main site.

Health Categories: amendments to 13 of 21 health categories.

Of these, eight have relatively small changes to include advice already established elswhere on the main health category page.

The remaining five are updated as follows:

- Metabolic: Additional details to algin with existing guidance on hormones, cholesterol and nutrition. This includes differentiating studies of pancreatic function and hypothalamus in a metabolic/non-metabolic context.
- Skin: Clarification of inflammatory role in dermatological conditions and studies of ulcers.
- Stroke: Clarifications to differentiate between Cardio, Blood and role of thrombosis.
- Generic: Better highlights the four main contexts in which Generic is used, provides further detail on the use of Generic as a subsidiary code (in line with updates to case studies and other existing guidance).
- Other: Substantial re-statement to clarify this difficult coding topic.

Research Activities: amendments to 9 of 48 sub-codes.

Also added three new 'common mistakes' entries to provide specific guidance on most common inter-coder reliability issues (1.1 vs 2.1; 4.1 vs 4.2; 3 vs 5/6).

All nine amendments are relatively minor, building on existing guidance:

- 3.3, 5.1 and 6.1 – update to include reference to nutritional supplements and probiotics.
- 5.2 and 6.2 – update to include microbiota transplantation.
- 5.6 and 6.6 – clarification of how to distinguish pre-clinical development in behavioural therapies.
- 4.1 and 4.2 – updated to clarify use of biomarkers and appropriate distinction between pre-clinical and clinical diagnostic testing.

Guidance Topics: amendments to 11 of 67 current topics

Seven of the 11 updates are relatively small, containing small additions or clarifications which align them better with existing guidance or other proposed updates.

Significant re-wording / amendments to four guidance topics:

- Alcohol: Better examples of studies of alcohol-related diseases to challenge the issue of using coding breakdowns irrespective of 'only if no other disease referenced' caveat.
- Biomarkers and screening: a major problem area from both quantitative and qualitative review.
- Case studies: addition of examples and better definition of a case study / exemplar / tracer comparison.
- Diet, obesity and nutrition: Added guidance on applying research activities which clarifies how obesity is not a disease but risk factor for other diseases (similar updates recommended for alcohol, smoking and new substance misuse topics).

In addition to the above changes, some of the titles for existing guidance topics have been edited to improve alphabetical listing (the style of the new website). This largely involves removing extraneous words or phrases such as 'Studies of' or 'research'.

New Guidance Topics: proposal to create 8 new guidance topics

The addition of these topics will bring the total to 75 guidance topics. They represent either a need to:

- Provide guidance on otherwise under-represented areas of research (n=5)
    - Cachexia
    - co-morbidities
    - liver
    - sleep
    - non-specified substance misuse
- New areas of research not yet established since the last update in 2009 (n=3)
    - Informatics
    - Stratified medicine
    - Systematic reviews

Health Categories

Blood

Haematological diseases, anaemia, clotting (including thromboses and venous embolisms) and normal development and function of platelets and erythrocytes

Not all haemopoietic cells or 'blood cells' are erythrocytes. This term is often used to encompass lymphocytes, macrophages, granulocytes and other white cell types. Check the context of the research e.g. if the research relates to leukaemia it will be referring to lymphocytes etc. and not to erythrocytes and therefore should ~~not~~ be coded as *Cancer* and not as *Blood*.

Studies investigating blood flow to the brain should be coded as *Stroke*.

Blood clots (thromboses) can lead to wider cardiovascular complications and stroke. In these circumstances code to the primary condition of focus ignoring pathogenesis, but following rules for sequelae where appropriate.

Cancer and neoplasms

All types of neoplasms, including benign, potentially malignant, or malignant (cancer) cancer growths. This includes leukaemia and mesothelioma.

Advice:

Do not code to the site of the cancer. However if the research involves studying a condition that predisposes to cancer then it may be appropriate to code for this condition as well:

> e.g. The role of Barrett's oesophagus in cancer would be 50% Oral and Gastrointestinal and 50% *Cancer*.

Similarly research on pathogens associated with the development of cancer should be coded 50% *Cancer* 50% Infection.

Studies of the normal role of oncogenes, tumour suppressor genes, and cell cycle checkpoints in a non-diseased cell should be coded as 50% Generic and 50% *Cancer*.

Excludes general studies of angiogenesis which should be coded as Cardiovascular. However the development of anti-angiogenic drugs to inhibit tumour growth would be coded as *Cancer*.

Excludes normal studies of cell cycle and DNA replication and repair which should be coded as Generic.

Cardiovascular

Congenital Disorders

Ear

Eye

Infection

Diseases caused by pathogens, acquired immune deficiency syndrome, sexually transmitted infections and studies of infection and infectious agents

Advice:

Infection should be used for all research on pathogens and diseases caused by infection. These studies should be coded as 100% *Infection* and should not also be coded to the target disease site.

e.g. infection by malaria parasite should be coded as 100% *Infection* and not Blood.

e.g. respiratory infections should be coded as 100% *Infection* and not Respiratory.

Studies involving the acute immune response to infection should be coded as *Infection*. **However** studies of natural tolerance and host immunity to infections should be coded as Inflammatory and Immune System.

Excludes TSEs, CJD and prion studies which should be coded as Neurological regardless of whether the study is investigating transmission or mechanism of disease.

Infections can often follow or precede other diseases or conditions. There is general guidance on sequelae and side effects of disease, but there are also several examples across the existing HRCS guidance where addition of further health categories is recommended:

- Studies of the downstream consequences of infection may also be coded to the disease or condition under investigation ~~site~~
    - e.g. surgery on diseased liver from Hepatitis C infection should be coded as 50% *Infection* and 50% Oral and Gastrointestinal.
- Studies that involve infection of a specific target patient group should be coded as 50% *Infection* and 50% to the appropriate Health Category
    - e.g. respiratory infection in people with cystic fibrosis should be coded as 50% *Infection* 50% Congenital Disorders.
- General studies on sexual health, including sexually transmitted infections (STIs), should be coded as 50% *Infection* and 50% Reproduction, but only if there is no named pathogen. If a pathogen is specified, use 100% *Infection*.
    - e.g. Studies of total STI rate in teenagers should be coded as 50% *Infection*, 50% *Reproduction*.
    - e.g. Studies of gonorrhoea in teenagers should be coded as 100% *Infection*.
- Studies of cancer causing pathogens should be coded 50% Cancer 50% *Infection*.
- Sepsis should be coded 50% *Infection* and 50% Inflammatory and Immune.

~~Studies involving the acute immune response to infection should be coded as *Infection*. Excludes natural tolerance and immunity to infections which is coded as Inflammatory and Immune System.~~

Inflammatory and Immune System

Rheumatoid arthritis, connective tissue diseases, autoimmune diseases, allergies and normal development and function of the immune system

Advice:

Includes listed immune diseases and studies of normal immune response.

Also includes natural tolerance and immunity to infections. However studies involving the acute immune response to infection should be coded as Infection; in general, any research with a **specified** infectious / pathogenic agent should be coded as Infection.

Most diseases are associated with an inflammatory response. In general, code to the disease under investigation and not to the accompanying inflammatory response. The most common examples of this approach are:

- **Asthma** - which should be coded as Respiratory. However studies of allergies in asthma sufferers can be coded as 50% *Inflammatory and Immune System* for allergies and 50% Respiratory for asthma.

- **Atherosclerosis** - which is coded as 100% Cardiovascular regardless of whether the investigation involves immune cells.

The exception to this general rule is Sepsis which should be coded 50% Infection and 50% *Inflammatory and Immune System*.

~~Most diseases are associated with an inflammatory response. Code to the disease under investigation and not to the accompanying inflammatory response.~~

Injuries and Accidents

Mental Health

Metabolic and Endocrine

~~Diabetes, thyroid disease, pituitary gland, parathyroid gland, adrenal glands and hypothalamus, metabolic disorders and normal metabolism and endocrine development and function~~

Additions made and restated as:

Metabolic disorders (including Diabetes) and normal metabolism and endocrine development and function. This includes all research on the pineal, thyroid, parathyroid, pituitary and adrenal glands.

Advice:

This category includes basic studies of metabolism but not generic signalling pathways involving kinases.

This includes studies of metabolic regulation; the means by which nutrients are converted into energy and the conditions which affect the ability of these processes to be carried out. For example regulation of blood lipids and *cholesterol* are classified as *Metabolic*.

Studies on *nutrition, diet and obesity* are context based and should only be coded as *Metabolic* if they relate to metabolism:

> e.g. diet and exercise interventions specifically aimed at reducing cholesterol levels.

This category also includes normal function and disorders of the endocrine system, including pineal, thyroid, parathyroid, pituitary and adrenal glands, and most hormones and hormone receptors studies. There are however some notable exceptions:

- Studies of reproductive hormones, including their role in fertility, menstruation, pregnancy and menopause, are usually coded as *Reproduction* and not *Metabolic*. Studies relating to the development of male and female reproductive organs should be coded as *Renal and Urogenital*.

- Studies of the pancreas and its role in metabolism, including regulation of blood sugar and Diabetes, should be coded as *Metabolic*. Studies of the pancreas and its role in digestion, including pancreatic juices, should be coded as *Oral and Gastrointestinal*.

- Studies of the hypothalamus and its role in metabolism should be coded as *Metabolic*. Studies of the hypothalamus as part of the brain and central nervous system should be coded as *Neurological*.

Musculoskeletal

Osteoporosis, osteoarthritis, muscular and skeletal disorders and normal musculoskeletal and cartilage development and function

Advice:

Includes research into limbs and the face.

Studies of musculoskeletal pain, such as fibromyalgia, should be classified as *Musculoskeletal*. However studies focussed on pain pathways in the nervous system would be classified as Neurological and pain perception would be classified as *Mental Health*.

Neurological

Dementias, transmissible spongiform encephalopathies, Parkinson's disease, neurodegenerative diseases, Alzheimer's disease, epilepsy, multiple sclerosis and studies of the normal brain and nervous system

Advice:

This category is suitable for studies of the 'wiring' of the brain.

Includes studies of TSEs, CJD and prion protein.

Studies on circadian rhythm are often but not always *Neurological*.

> Other conditions where disruption to circadian rhythm is linked to disease should be coded to the appropriate health category. For example, circadian influence on immune cells in rheumatoid arthritis would be coded as *Inflammatory and Immune System*.

Studies on headaches and migraine are often but not always *Neurological*.

> Headaches resulting from other conditions may require alternative or additional health categories, following the rules for sequelae. For example, headaches resulting from visual impairments can be coded *50% Eye, 50% Neurological*.

Studies of the Blood-Brain Barrier, vascular cognitive impairments and vascular dementia should be coded as *Neurological* **unless** there is significant additional emphasis on either circulation (50% *Cardiovascular,* 50% *Neurological*) or the blood flow to the brain (50% *Neurological*, 50% *Stroke*).

Excludes studies dealing with the brain of individuals with a psychological condition listed in the Mental Health category which should be coded as 100% Mental Health.

Oral and Gastrointestinal

Renal and Urogenital

Reproductive Health and Childbirth

Includes studies of ante and post-natal care such as issues affecting newborns.

Includes studies of the effects of exposure to factors while in utero **if** focussed on the foetus or newborns. If the study is about the long term effects on children or adults, where the foetus is not involved in the investigation, the *Reproductive Health and Childbirth* category should not be used.

Studies of sexual health should be coded 50% *Reproductive Health and Childbirth* and 50% Infection, unless the study involves a **specified** pathogenic agent (such studies should be coded as 100% Infection).

May include studies of reproductive hormones.

Excludes basic developmental studies in non-human models.

Respiratory

Advice on health categories

Includes studies of the upper and lower respiratory tract, including nasal cavity, sinuses, larynx, vocal cords, trachea and lungs. Studies of the elements of the throat shared with the digestive

system (e.g. pharynx and epiglottis) may be coded as Oral and Gastrointestinal depending on the context of the research.

Studies of allergies in asthma sufferers can be coded as 50% Inflammatory and Immune System for allergies and 50% *Respiratory* for asthma.

Excludes pulmonary hypertension which should be coded as Cardiovascular.

Excludes respiratory infections which should be coded as Infection.

Note there is specific guidance for coding research related to smoking, tobacco and smoking-related diseases.

Skin

Dermatological conditions and normal skin development and function

Advice:

Many dermatological conditions are associated with an inflammatory or allergic response. Code to the disease under investigation and not to the accompanying response. This means conditions such as psoriasis and eczema would normally be coded as 100% *Skin*. However studies of allergies in patients with dermatological conditions can be coded as 50% Inflammatory and Immune System for allergies and *50% Skin*.

Similarly infections of the skin should be coded as 100% Infection. However studies of skin infections for patients with pre-existing dermatological conditions can be coded as 50% Infection and 50% *Skin*.

Studies of ulcers would normally be coded to *Skin*. However in studies of ulcers in a particular patient population, such as diabetics, the guidance for sequelae and side effects of disease should be followed and the study should be coded to include the additional health category for the underlying condition:

> e.g. Venous ulcers would be coded 50% *Skin*, 50% Cardiovascular.
>
> e.g. Diabetic skin ulcers would be coded 50% *Skin*, 50% Metabolic and Endocrine.

Stroke

Include both ischaemic stroke (caused by blood clots) and haemorrhagic stroke (caused by cerebral/intercranial haemorrhage)

When coding research involving circulation or blood flow, only studies investigating blood flow to the brain should be coded as *Stroke*.

While general blood circulation and cardiovascular disease research should be coded as *Cardiovascular*, research involving blood flow to brain should be coded as *Stroke*. Therefore haemorrhagic stroke will generally be coded as *100% Stroke* unless there is a clear pre-existing condition, in which case the guidance on sequelae should be followed:

e.g. Research on stroke resulting from brain haemorrhage should be coded as 100% *Stroke*

e.g. Research on stroke as the direct result of pre-existing circulatory disorder should be coded as 50% *Cardiovascular and* 50% *Stroke*.

While general studies of clotting and thromboses should be coded as *Blood*, research involving blood flow to brain should be coded as *Stroke*. Therefore ischaemic stroke will generally be coded as *100% Stroke* unless there is a clear pre-existing condition, in which case the guidance on *sequelae* should be followed:

e.g. Research on stroke resulting from thrombosis should be coded as 100% *Stroke*

e.g. Research on stroke as the direct result of pre-existing clotting disorder should be coded as 50% *Blood* and 50% *Stroke*.

Similarly, research on symptoms of stroke on stroke survivors should also be coded as Stroke. However, the specific symptoms (e.g. behavioural changes, mobility issues, further circulatory problems) and interventions used to treat them may be applicable to other health categories too. Use the guidance on case studies and/or sequelae to assess whether alternative or additional coding is required.

Generic Health Relevance

- Research applicable to all diseases and conditions or to general health and well-being of individuals.
- Public health research, epidemiology and health services research that is not focused on specific conditions.
- Underpinning biological, psychosocial, economic or methodological studies that are not specific to individual diseases or conditions

Advice:

There are four main circumstances where the *Generic Health Relevance* category is most applicable:

- Research that is relevant to **all** diseases and conditions or to **general** health and well-being.
    - For example, many studies with research activity coded as 1 Underpinning involves study of normal processes that may be relevant to all diseases and conditions e.g. cell cycle or DNA repair, development biology.
- Any research that cannot be attributed to a particular disease or condition or to normal function of a specific type of cell or system, defined by the top 19 health categories.
    - E.g. Studies of wound healing without a specified tissue type or specifically caused by *Accident or Injuries*.
- If research is judged relevant to more than **five** Health Categories then these should be substituted for 100% *Generic Health Relevance*.
- As an additional code for studies with a disease(s)/condition(s) of focus **which also has relevance to many other diseases/conditions**.
    - This final circumstance has considerable scope, so additional guidance is given below.

~~The *Generic* category refers to research that is relevant to **all** diseases and conditions or to **general** health and well-being.~~

~~It is applicable to any research that cannot be attributed to a particular disease or condition or to normal function of a specific type of cell or system.~~

~~If research is judged relevant to more than **five** Health Categories this category should be used.~~

Generic Health Relevance as an additional code

If the main focus of the research is directed at several specified diseases and also has implications for many other conditions, the appropriate specific Health Categories should be used as well as applying the *Generic* category. (Note that this does not apply to diseases that may be listed within the background information or are noted as 'being relevant' to the study under investigation; many awards will reference multiple conditions to provide a context for the research, but always apply coding based on the lifetime of the award - (see the coding guidance on assigning Health Categories.)

Examples of this use of *Generic Health Relevance* coding appears across the HRCS guidance, including:

- Cancer studies - Studies of the normal role of oncogenes and tumour suppressor genes in a non-diseased cell may be coded as 50% *Generic* and 50% Cancer.
- Pollution - If there is no other indication of the health effects of air pollution, code 50% Respiratory for the direct effects on the lungs and 50% *Generic* for other effects.
- Environmental radiation - Studies of the effects of environmental radiation exposure should be coded 33.33%Cancer, 33.33% Congenital Disorders and 33.33% *Generic*.
- Studies where a particular condition is used as an exemplar or case study to evaluate models, services and systems may also be coded as *Generic* - see *Case Studies* guidance for more details.

Disputed Aetiology and Other

Conditions of unknown or disputed aetiology (such as chronic fatigue syndrome/myalgic encephalomyelitis), or research that is not of Generic Health Relevance and not applicable to the top 19 specific health categories with specific pathological / physiological determinants.

The *Disputed Aetiology and Other* category is rarely used and should only be used in **specific** circumstances that cannot be attributed to any of the 19 named health categories or Generic Health Relevance. There are three such circumstances suggested here. Research that does not fall into the preceding 20 health categories or these specified uses of *Other* should be considered outside of scope for HRCS coding.

(1) Unknown or disputed Aetiology
The most frequent circumstance where coding to *Other* is appropriate are conditions of unknown or disputed aetiology. Conditions include:

- **Chronic fatigue syndrome / Myalgic Encephalopathy / Post-Viral Fatigue Syndrome / Chronic Fatigue Immune Dysfunction Syndrome:** It is not known how these conditions are triggered; some experts have suggested they are a result of a virus but this does not explain why symptoms get worse after the virus has resolved. The aetiology of the condition has not been agreed.

- **Gulf war syndrome / illness:** This is a multi-symptom disorder affecting returning military personnel and civilians from the Gulf war. The condition has long lasting symptoms and has been recognised by the Department of Defence but there is not agreement on the underlying cause or a formal definition of the condition. Note this is a separate condition distinct from Post-traumatic Stress Disorder (PTSD, which should be coded as Mental Health).

(2) Animal Welfare
In general studies of animal welfare should be assigned the *Other* category. This applies to studies with direct focus on laboratory animals and the use of animals in human health research. The wider field of veterinary research is outside the scope of HRCS.

See the guidance topic on Animal Welfare for further details.

(3) Social Services Research
Not all social services research will be within scope of HRCS. Only social services research with a health relevant component should be classified, and most health-relevant social research will be applicable to the general population and therefore classified under Generic Health Relevance.

However *Other* also includes some types of social services research focuses on specific 'healthy' at risk groups that is not of relevance to the general population. Examples of such research include:

- Research into services for young people at risk of domestic violence.
- Research into services for minorities at risk of hate crime.

Research Activity Codes

1 Underpinning Research

1.1 Normal biological development and functioning

1.2 Psychological and socioeconomic processes

1.3 Chemical and physical sciences

1.4 Methodologies and measurements

1.5 Resources and infrastructure (underpinning)

2 Aetiology

2.1 Biological and endogenous factors

2.2 Factors relating to physical environment

2.3 Psychological, social and economic factors

2.4 Surveillance and distribution

2.5 Research design and methodologies (aetiology)

2.6 Resources and infrastructure (aetiology)

3 Prevention of Disease and Conditions, and Promotion of Well-Being

3.1 Primary prevention interventions to modify behaviours or promote well-being

3.2 Interventions to alter physical and biological environmental risks

3.3 Nutrition and chemoprevention

Research on chemopreventative agents and health protective effects of nutrients including

- development, characterisation and mechanism of action
- chemical contraceptives
- testing and evaluation in model systems and clinical, applied and community settings
- evaluation of evidence to inform policy

Advice:

Includes studies focused on the potentially health protective effects of specific nutrients, probiotics and nutritional supplements plus chemopreventative studies including oral contraceptives.

Excludes general epidemiological studies of the effects of nutrition on health or association with disease.

Excludes studies where nutrients, probiotics and/or nutritional supplements are used as therapeutics treatments. Such studies should be coded as 5.1 Pharmaceuticals if in pre-clinical development or 6.1 Pharmaceuticals if in a clinical/applied setting.

Exclude studies on microbiota transplantation. These are consider cell treatments and should be coded as *Cellular & Gene Therapies*; 5.2 for pre-clinical, 6.2 for clinical/applied.

3.4 Vaccines

3.5 Resources and infrastructure (prevention)

4 Detection, Screening and Diagnosis

4.1 Discovery and preclinical testing of markers and technologies

Discovery, development and preclinical testing of novel markers (that may be derived from patient samples) and technologies for use in detection, diagnosis, prediction, prognosis and monitoring including

- biological and psychological markers
- diagnostic and monitoring devices, imaging, scanning, predictive and diagnostic tests
- development and characterisation of models
- diagnostic measures and methodologies

Advice:

~~Includes pre-clinical investigation of potential diagnostics, however these studies can include patient samples if they are being used in the diagnostic development phase.~~

Note the word ‘discovery’ in this context is a medical term referring to determining if a marker is suitable for use in diagnosis/prognosis. This is distinct from the primary identification of candidates that may be potentially used as diagnostic markers, which would be coded in 2 Aetiology.

Therefore this code is suitable for use if potential diagnostic targets have already been identified in preliminary aetiological studies characterising specific pathways and these potential markers are now being verified in the discovery and testing stage.

Includes pre-clinical investigation of potential diagnostics, however these studies can include patient samples if they are being used in the diagnostic development phase.

Excludes clinical and applied testing in humans, once verified in the laboratory, often in a trial or studies that involve a group of people. Such studies should be coded 4.2 Marker evaluation.

4.2 Evaluation of markers and technologies

Testing and evaluation of markers and technologies in humans for use in detection, diagnosis, prediction, prognosis and monitoring in clinical, community or applied settings including

- assessment of sensitivity, efficacy, specificity, predictive and prognostic value, reproducibility and safety
- medical devices, imaging, diagnostic and predictive tests
- evaluation of diagnostic models, methods and methodologies in clinical or applied settings

Advice:

Includes clinical and applied testing in humans, once verified in the laboratory, often in a trial or studies that involve a group of people.

Excludes pre-clinical investigation of potential diagnostics, which can include patient samples if they are being used in the diagnostic development phase. Such studies should be coded 4.1 Marker discovery.

4.3 Influences and impact

4.4 Population screening

4.5 Resources and infrastructure (detection)

5 Development of Treatments and Therapeutic Interventions

5.1 Pharmaceuticals

Identification and development of pharmaceutical small molecules, therapeutic vaccines, antibodies and hormones including

- drug screening and development of delivery systems
- mechanism of action including side effects and drug resistance
- pharmacogenetics, prediction of genetic variation and responses to drugs
- testing in *in vitro* and *in vivo* model systems

Advice:

In general this code should be used to characterise therapeutic targets rather than for their initial identification. It includes mechanism of action but should not be used to code studies where agonists or inhibitors are used as part of the methodology to understand the mechanism of other systems.

Includes mechanism of action and resistance to therapeutics. This includes characterisation of antibiotic resistance genes and mechanisms in bacteria which should not be coded as 2.2 Physical risks for cause of disease.

Includes studies predicting responses to therapies.

Includes studies of nutritional supplements used as treatments for disease.

Excludes studies focused on the potentially chemopreventative / health protective effects of specific nutrients, probiotics and nutritional supplements, which should be coded 3.3 Nutritional Prevention.

5.2 Cellular and gene therapies

Discovery and development of cellular, tissue and gene therapies including

- gene therapy, stem cells therapy, *in vitro* fertilisation and tissue engineering
- Fecal Microbiota transplantation (FMT)
- development of delivery systems
- development of culture systems
- testing in *in vitro* and *in vivo* model systems

Advice:

This code is suitable for studies involving *in vivo* stem cell research particularly tissue regeneration or repair of damaged tissue and generation of stem cell lines.

Cell therapy studies involve a transplantation process but they should not be coded as 5.4 Surgery too. An exception to this is surgical transplantation of bone marrow stem cells for cancer treatment, which is considered a similar process to organ transplantation, and should therefore be coded as 5.4 Surgery.

Excludes basic developmental biology of stem cell fate which should be coded as 1.1 Biological.

5.3 Medical devices

5.4 Surgery

5.5 Radiotherapy

Add ‘and other non-invasive therapies’ to full name of code

5.6 Psychological and behavioural

Development of psychological and behavioural interventions including

- cognitive behavioural therapy, electro-convulsive therapy, counselling, therapy and social interventions
- testing in model systems

Advice:

It is difficult to develop behavioural and psychological interventions without involvement of human participants.

Use *5.6 Psychological and Behavioural* for studies involving the development and testing of new behavioural therapies and psychological interventions in pre-clinical and model settings. Examples include preliminary qualitative work (e.g. literature reviews, discussions with patients and practitioners) development of the techniques/technologies to be used in the therapy (e.g. questionnaires, computer programmes). Testing may involve human participants and still considered *Treatment Development* if few in number, involve volunteers (not patients), and/or are clearly identified as preceding formal pilot studies and clinical trials.

Use 6.6 Psychological and Behavioural for studies involving human participants in direct clinical applications. These will typically involve both pilot studies on small numbers of patients to assess viability of new treatments, and larger phase I-IV clinical trials which formally evaluate new or modified treatments against existing procedures.

5.7 Physical

5.8 Complementary

5.9 Resources and infrastructure (development of treatments)

6 Evaluation of Treatments and Therapeutic Interventions

6.1 Pharmaceuticals

Clinical application and evaluation of pharmaceutical small molecules, therapeutic vaccines, antibodies and hormones in humans including

- small scale settings and pilot studies
- phase I, II, III and IV trials
- assessing sensitivity, efficacy, specificity, relapse, survival, therapeutic value, pharmacokinetics, reproducibility and safety
- studies monitoring response, outcome, drug resistance and side effects

Includes studies of nutritional supplements used as treatments for disease.

Excludes studies focused on the potentially chemopreventative / health protective effects of specific nutrients, probiotics and nutritional supplements, which should be coded 3.3 Nutritional Prevention.

6.2 Cellular and gene therapies

Clinical application and evaluation of cellular, tissue and gene therapies in humans including

- small scale and pilot studies
- phase I, II, III and IV trials
- gene therapy, stem cell therapy, *in vitro* fertilisation, tissue engineering
- Fecal Microbiota Transplantation (FMT)
- evaluation of applied delivery systems

Advice:

This code is suitable for studies involving stem cell therapies, particularly tissue regeneration or repair of damaged tissue, in clinical and applied settings.

Cell therapy can often involve a transplantation process but they should not be coded as 6.4 Surgery too. An exception to this is surgical transplantation of bone marrow stem cells for cancer treatment, which is considered a similar process to organ transplantation, and should therefore be coded as 6.4 Surgery.

Excludes basic developmental biology of stem cell fate which should be coded as 1.1 Biological.

6.3 Medical devices

6.4 Surgery

6.5 Radiotherapy

Add 'and other non-invasive therapies' to full name of code

6.6 Psychological and behavioural

Application and evaluation of psychological and behavioural interventions in humans in clinical, community and applied settings

- phase I, II, III and IV trials
- cognitive behavioural therapy, electro-convulsive therapy, counselling, therapy and social interventions

Advice:

It is difficult to develop behavioural and psychological interventions without involvement of human participants.

Use 5.6 Psychological and Behavioural for studies involving the development and testing of new behavioural therapies and psychological interventions in pre-clinical and model settings. Examples include preliminary qualitative work (e.g. literature reviews, discussions with patients and practitioners) development of the techniques/technologies to be used in the therapy (e.g. questionnaires, computer programmes). Testing may involve human participants and still considered treatment development if few in number, involve volunteers (not patients), and/or are clearly identified as preceding formal pilot studies and clinical trials.

Use *6.6 Psychological and Behavioural* for studies involving human participants in direct clinical applications. These will typically involve both pilot studies on small numbers of patients to assess viability of new treatments, and larger phase I-IV clinical trials which formally evaluate new or modified treatments against existing procedures.

6.7 Physical

6.8 Complementary

6.9 Resources and infrastructure (evaluation of treatments)

7 Management of Diseases and Conditions

7.1 Individual care needs

7.2 End of life care

7.3 Management and decision making

7.4 Resources and infrastructure (disease management)

8 Health and Social Care Services Research

8.1 Organisation and delivery of services

8.2 Health and welfare economics

8.3 Policy, ethics and research governance

8.4 Research design and methodologies (health services)

8.5 Resources and infrastructure (health services)

Guidance Topics

Ageing

Alcohol consumption

The coding for studies on alcohol will depend on the nature of the research.

Use Mental Health for any studies of alcohol addiction/misuse and resulting behavioural problems.

Use Oral and Gastrointestinal for studies of cirrhosis following alcohol misuse.

Only ~~U~~use the following standardised breakdown of health categories and percentages for general studies on alcohol consumption **where there is no other indication of disease area**:

Health Category	Percentage
Cancer	25
Cardiovascular	25

Oral and Gastrointestinal	25
Stroke	25

The standardised breakdown choices select the four main health categories that will be most affected by alcohol consumption. If the study aim relates to these (or any other health category) individually, then the normal rules of HRCS apply:

> e.g. “Alcohol misuse and risk of breast cancer” would be 100% Cancer.
> e.g. “Reducing health burden by a new alcohol advice service” would use the standardised breakdown (unless the abstract / application text indicates otherwise).

Advice on Research Activity:

Alcohol consumption is considered a risk factor for other diseases. Therefore, interventions to reduce alcohol consumption should be coded as 3 Prevention, even if the person already drinks. Use 5 Treatment Development or 6 Treatment Evaluation for studies focussed on treatment of an existing alcohol-related disease and in cases of secondary prevention.

Additional guidance on differentiating secondary and primary prevention is also available.

Animal welfare and replacing animals in research

Advice on Health Categories:

In general studies of animal welfare should be assigned the Other category. This applies to studies with direct focus on laboratory animals and the use of animals in human health research. The wider field of veterinary research is outside the scope of HRCS.

However, if developing models or new techniques with the aim of replacing or reducing animals in research, the Health Category should reflect the subject area of the research

> e.g. a new assay replacing an animal model used in respiratory infection studies should be coded as Infection.

Advice on Research Activity Codes:

General studies of animal welfare and the development of models or new techniques with the aim of replacing or reducing animals in research should be coded to the infrastructure code appropriate to the nature of the study.

Atherosclerosis

Biomarkers and screening

The term ‘biomarker’ in general refers to a specific molecule, gene or characteristic from which a physiological process can be identified. Biomarkers are typically coded in one of three research activity groups:

2 Aetiology: Where markers may be first identified in epidemiology studies or further assessed to determine how the molecule/gene/etc. contribute to the cause, risk or development of disease

4 Detection and Diagnosis: Where studies of biomarker discovery and biomarkers screening for the purposes of disease diagnosis or prognosis are usually within 4 Detection and Diagnosis.

5 Treatment Development: Specifically where markers are used to develop treatments. However if looking at pharmacogenetic studies in pre-clinical settings or model systems, most commonly in pharmacogenetic studies (5.1) it should be classified in 5 Treatment Development. Identification of receptor pathways should be classified in 2 Aetiology.

Examples:

- The initial discovery of BRCA1 gene mutations as potential risk factors for breast cancer in epidemiology studies and would be coded in 2 Aetiology.
- Characterisation of BRCA1 gene, protein and pathway in cancer would likewise be coded in 2 Aetiology.
- The pre-clinical development and subsequent clinical application of techniques for screening for BRCA1 mutations to determine diagnosis or prognosis would be coded 4 Detection & Diagnosis.
- Assessment of BRCA1 expression for pharmacogenetics in drug development would be coded 5.1 Treatment Development - Pharmaceuticals.

Cancer and conditions predisposing to cancer

Cell cycle and DNA repair

Cerebral palsy and spina bifida

CONSIDER SPLITTING THESE INTO TWO GUIDANCE TOPICS?

Cholesterol

Elevated blood lipids and high cholesterol levels are considered to be a disorders of metabolic regulation and studies in this area are classified as *Metabolic and Endocrine*. This includes studies of HDL (high density lipoprotein), LDL (low density lipoprotein) and triglycerides.

Studies on nutrition, diet and obesity specifically aimed at reducing cholesterol levels should be coded as *Metabolic*. However such studies are often context based and should only be coded as *Metabolic* if they relate to metabolism.

Congenital disorders and inherited syndromes

Developmental biology

Diet, obesity and nutrition

Advice on Health Categories:

The coding for studies on obesity, diet and nutrition will depend on the nature of the research.

Use Metabolic and Endocrine for investigation of metabolic disorders or dietary metabolism. Mental Health is appropriate for studies of eating disorders and Oral and Gastrointestinal should be used to code for studies of absorption from the gut.

Only use the following standardised breakdown of health categories and percentages for general studies on nutrition, obesity or poor diet where there is no other indication of disease area:

Health Category	Percentage
Cancer	20
Cardiovascular	20
Metabolic and Endocrine	20
Oral and Gastrointestinal	20
Stroke	20

Note that this standardised breakdown is shared with research on physical activity and exercise.

Advice on Research Activity

Obesity is considered a risk factor for other diseases. Therefore, interventions to reduce obesity should be coded as 3 Prevention, even if the person is already obese. Use 5 Treatment Development or 6 Treatment Evaluation for studies focussed on treatment of an existing obesity-related disease and in cases of secondary prevention.

Additional guidance on differentiating secondary and primary prevention is also available.

There are three main research activity code groups typically associated with diet and nutrition research:

- 3 Prevention for studies focussed on preventing ill health or promoting well being
  - Use 3.1 Primary Prevention for interventions that aim to modify behaviour or lifestyle
  - Use 3.3 Nutrition Prevention for studies on the chemopreventative / health protective effect of nutrients, probiotics and nutritional supplements.
- For studies where nutrition, diet or exercise is used to treat established diseases/conditions. Use 5 Treatment Development for pre-clinical research and 6 Treatment Evaluation for clinical/applied research.
  - Use 5.1 or 6.1 for direct use of nutritional supplements as therapeutics
  - Use 5.2 or 6.2 for microbiota transplantation therapy
  - Use 5.7 or 6.7 for dietics (nutrition and dietary advice) and exercise/physical therapy
  - Use 5.8 or 6.8 for studies of homeopathy

Prevention - Differentiating secondary and primary prevention

pollution and environmental hazards

Sequelae, consequences and side effects

Advice on Health Categories:

Research aimed at investigating **sequelae of a specific pre-existing disease** should be assigned equal percentage weighting to the primary existing condition and to the condition under investigation.

> e.g. cardiovascular disease in diabetic patients is classified 50% Cardiovascular and 50% Metabolic and Endocrine.

Studies of the **side effects of a disease**, where the condition under study is a downstream consequence of an original condition, are treated similarly.

> e.g. A study into depression as a result of cancer would be coded 50% Mental Health and 50% Cancer.

> e.g. Post natal depression is coded 50% Mental Health, 50% Reproduction.

Studies of the **direct side effects of a disease treatment** are usually coded in the same way.

> e.g. A study of bowel injury resulting from radiotherapy for cancer is coded 50% Cancer and 50% Oral and Gastrointestinal.

In some cases, however, it may **not** be appropriate to code for the pre-existing disease.

> e.g. if a particular disease is being used as an exemplar for studying the side effects of a treatment, such as studies of generalisable anti-nausea drugs.

There are additional coding guidance available for diseases used as *case studies* and co-morbidities.

Ear and hearing

Economic evaluation components in trials

Education

Eye and vision

Foetal development, pregnancy and 'in utero' studies

Immunology and the immune system

Infectious diseases

Treatment effectiveness

Methodologies, measurements and research designs

Neuropsychology

Nutritional and vitamin supplements

Pain

Case studies, exemplars or tracer conditions

The term ‘case study’ is used in a variety of contexts in biomedicine, such as a clinical case study chronicling the treatment of a single patient. However in this context we use ‘case study’ to describe where patients with a particular condition may be used as a proxy / exemplar / tracer condition in studies evaluating models, services or systems applicable to other (or a wider range of) conditions.

In these circumstances~~, where investigating~~ the specific condition used in the patient group (the ‘case study’)~~ is~~ may not be the main aim of carrying out the study, but is used purely to demonstrate a broader argument. Therefore in this specific context the appropriate health category for the condition used as the case study may not be relevant to this wider study aim.

> e.g. If the study examines prescriptions for a single condition but the wider aim is to assess prescriptions across all areas of health or wellbeing, it would ~~may~~ be more appropriate to ignore the exemplar condition and use the *Generic* Health Category.

However in many cases the health category of the case study / proxy / exemplar / tracer condition will still be intrinsically linked to the wider study being addressed. In this case, dual coding of both exemplar condition and wider topic would be appropriate.

> e.g. Asthma is routinely coded as Respiratory in HRCS, but if it is used as an example of allergenic reactions, it would be appropriate to **add** the Inflammatory & Immune health category to the coding of the project.

This approach of when to apply dual coding is similar to the approach taken when considering Sequelae (one disease as a consequent of another), studies of cachexia and in co-morbidity research.

Pharmaceuticals outside the therapeutic context

Physical activity and exercise

Policy

Pulmonary hypertension

Quality of life components in trials

Resources and infrastructure

Sexual health

Smoking and tobacco

Advice on Health Categories:

The coding for studies on smoking and tobacco will depend on the nature of the research.

Use Mental Health for studies of tobacco and nicotine addiction and associated behavioural problems.

Only use the following standardised breakdown of health categories and percentages for general studies on smoking and tobacco where there is no other indication of disease area:

Health Category	Percentage
Cancer	25
Cardiovascular	25
Respiratory	25
Stroke	25

Advice on Research Activity:

Smoking is considered a risk factor for other diseases. Therefore, interventions to reduce smoking should be coded as 3 Prevention, even if the person already smokes. Use 5 Treatment Development or 6 Treatment Evaluation for studies focussed on treatment of an existing smoking-related disease and in cases of secondary prevention.

Additional guidance on differentiating secondary and primary prevention and distinguishing between preventative and treatment interventions are also available.

Stem cells

Advice on Research Activity Codes:

The coding for stem cell research will depend on the intention and nature of the research.

Basic developmental biology or a study of normal stem cell differentiation should be coded within the 1 Underpinning code group.

Stem cell research involving development, differentiation or transplantation of stem cells directly associated with therapeutic application (one of the main components of Regenerative Medicine) should be coded as 5.2 Gene therapy or 6.2 Gene therapy.

> e.g. the development of stem cell lines for potential therapeutic studies should be coded as 5.2 Gene therapy.

In general the codes for 5.4 Surgery and 6.4 Surgery do not apply to studies of cell therapy transplantation. An exception to this is surgical transplantation of bone marrow stem cells for cancer treatment, which is considered a similar process to organ transplantation, and should therefore be coded as 5.4 Surgery or 6.4 Surgery.

Sepsis

Advice on Health Categories:
Sepsis should be coded 50% Infection and 50% Inflammatory and Immune. This includes all forms of sepsis. Other codes should only be added in exceptional circumstances (see sequelae).

TSEs, BSE, CJD and prion protein

muscle and the neuromuscular junction

Surgical procedures

Thromboses and embolisms

In general clotting disorders are classified as Blood - this includes deep vein thromboses and venous embolisms.

Diseases of the vasculature such as thrombophlebitis are classified as Cardiovascular. It may be appropriate to code for both Blood and Cardiovascular where the study overlaps both areas.

While general studies of clotting and thromboses should be coded as *Blood*, research involving blood flow to brain should be coded as *Stroke*. Therefore ischaemic stroke will generally be coded as *100% Stroke* unless there is a clear pre-existing condition, in which case the guidance on sequelae should be followed.

<add sequelae to 'related guidance topics'>

multiple diseases and categories

Trials

Vasculitis

Vertigo and disorders of balance

Wounds and healing

New Guidance Topics (to be created)

ADDED TO WEBSITE 08/09/17

Cachexia in chronic diseases and chemotherapy

Advice on Health Categories:

Cachexia is the term used for the weight loss, muscle wastage (atrophy), and fatigue associated with late stage, long term and/or chronic conditions (e.g. Cancer, HIV/AIDS, muscular sclerosis). Cachexia is also used in association with the effects of chemotherapy medication in cancer treatment.

Studies of patients with cachexia should be coded based on the underlying causal condition, but follow the rules for *sequelae and side effects* as appropriate.

For example: “Assessment of cancer patients with cachexia” would be coded 100% *Cancer and neoplasms*.

Whereas: “Assessment of depression in cancer patients with cachexia” would be coded 50% *Mental Health*, 50% *Cancer*.

Associate guidance with: Cancer

Co-morbidities

Advice on Health Categories:

Co-morbidities - the incidence of two or more diseases simultaneously - is common in medicine and has impact on treatments depending on whether they are coincidental, synergistic or one is clinically dominate.

Studies of co- or multi-morbidities should be coded to reflect **all** contributory diseases/conditions with the appropriate health categories, in alignment with the guidance on *sequelae*. If this were to exceed the limit of five health categories, use 100% *Generic Health Relevance* instead.

There is also additional guidance for diseases used as *case studies* for wider health conditions, which is a common theme in co-morbidity studies.

Associate guidance with: <none>

Informatics, Bioinformatics and ‘Big Data’

Advice on Research Activity:

Bioinformatics is a relatively new interdisciplinary field focusing on interpretation of complex biological data. Studies using bioinformatics will therefore be usually coded in:

- 1 Underpinning for fundamental biology - particularly 1.1 Biological and 1.4 Methodology
- 2 Aetiology if assessing disease cause, risk or development - particularly 2.1 Endogenous risks and 2.5 Design

Evidence obtained via bioinformatics research may also lead to biomarkers for diagnostic applications (4 Detection and Diagnosis), and development of new therapeutics (5 Treatment Development), although these can be future applications and not the main objective of the research.

The wider topic of **Informatics** - the science of processing, interpretation and storing of vast quantities of data – can often refer to significant resources with wide-reaching applications in health research. As such the guidance for *Resources and Infrastructure* should be followed when awards support the creation of ‘big data’ repositories. However, the onward use of informatics data should be treated as any other database or resource used in research, with awards coded based on the main research objective.

Associate guidance with: 1.1, 1.4, 2.1 and 2.5

Liver

Advice on Health Categories:

In general, normal function and conditions affecting the liver (e.g. cirrhosis) should be coded as Oral and Gastrointestinal. Otherwise follow the guidance associated with other health categories appropriately:

- Studies of liver cancer should be coded as 100% Cancer.
- Studies of liver infections (e.g. infectious hepatitis) should be coded as 100% Infection.
- Conditions relating to blood vessels of the liver, such as hepatic vein thrombosis, should be coded as *Cardiovascular*.

Many conditions of the liver are associated with an inflammatory or metabolic response, e.g. non-infectious hepatitis. However only the disease under investigation should be coded and not to the accompanying inflammatory/metabolic response.

Studies focused on alcohol should use follow the separate guidance on alcohol consumption, and use the standardised breakdown only where there is no other indication of disease area.

Associate guidance with: Oral

Sleep and studies of sleep disorders

Advice on Health Categories:

Studies of sleep follow the same guidance as neuropsychology:

- Studies mapping normal behaviour or cognitive processes to brain regions should be coded 50% Neurological and 50% Mental Health.
- Studies of abnormal behaviour and psychology will generally be coded as Mental Health.
- Studies of abnormal brain and neural structures will generally be coded as Neurological.
- Studies of circadian rhythm are often but not always *Neurological*.

Sleep disorders refer to studies which investigate sleep disturbances. They are divided into six main categories:

- Insomnia - should be coded as *Neurological*.
- Sleep related breathing disorders - e.g. sleep apnoea - should be coded as *Respiratory*.
- Hypersomnias - e.g. narcolepsy - should be coded as *Neurological*.
- Circadian rhythm sleep disorders - should be coded as *Neurological*.
- Parasomnias - e.g. sleepwalking - usually involve motor and verbal elements and should be coded as *Neurological*.
- Sleep related movement disorders - e.g. restless leg syndrome - should be coded as 50% *Neurological*, 50% *Musculoskeletal*.

Associate guidance with: Neurological, Mental Health

Stratified Medicine, Precision Medicine and Personalised Medicine

Advice on Research Activity Codes:

Classification of research is context dependent and the coding guidance for assigning research activities is to identify the appropriate main code group **first**, then assigning a sub-code within it.

If the work relates to diagnostic or prognostic testing to inform treatment decisions, it would be more appropriate to code to 4 Detection and Diagnosis; in most cases using 4.1 for pre-clinical development and 4.2 for clinical use.

If the work is development of new treatments in a pre-clinical or model setting, it would be more appropriate to code to 5 Treatment Development. This includes studies of pharmacogenetics for new therapeutics which should be coded as 5.1.

If it is clinical research using a precision medicine approach then it would be more appropriate to code to 6 Treatment Evaluation for the intervention being evaluated .

Associate guidance with: 4.1, 4.2 and 5.1

Substance misuse and addiction

Advice on Health Categories

Both smoking and alcohol have their own specific guidance topics relating to misuse and addiction.

Other substances should be classified depending on the nature of the research:

- All studies of addiction are treated as psychological conditions and should be coded as *Mental Health*.
- Any study of substance abuse that relates to a specific disease or condition should be coded to the appropriate health category:
    - e.g. intravenous drug use and risk of infection should be coded *Infection*.
- *Other* also includes some types of social services research for specific 'healthy' at risk groups that is not relevant to the general population, e.g. young people or minorities at risk of developing substance abuse problems. Note that in these cases *Other* should only be used if there is **no other disease/condition** of focus presented.

Advice on Research Activities

Substance misuse is considered a risk factor for other diseases. Therefore, interventions to reduce substance misuse should be coded as 3 Prevention, even if the person is already misusing. Use 5 Treatment Development or 6 Treatment Evaluation for studies focussed on treatment of an existing substance-misuse-related disease and in cases of secondary prevention.

Additional guidance on differentiating secondary and primary prevention is also available.

Associate guidance with: Mental Health, Other

Systematic Reviews

Advice on Research Activity:

Systematic reviews are increasing in importance for evidence-based medicine. Systematic reviews tend to involve meta-analysis of a given set or sub-set of treatments for purposes of evaluation, and as such will normally be coded in 6 Treatment Evaluation, using appropriate sub-code(s) for the particular treatments being assessed. If the review involves such a range of treatments that more than four sub-codes (the maximum allowed under HRCS) is required, use 100% 6.9 Resources and Infrastructure.

However some systematic reviews have a scope beyond treatment comparisons and may involve an assessment of delivery of 8 Health Services. Such broad, organisational systematic reviews should be coded as 8.1 Organisation and delivery of services.

Associate guidance with: 6.9 and 8.1

Other Website Text

General Approach to Coding: main guidance page

Reason: confusion over equal percentages and clarification to when 'rules' can be amended.

All the assigned Research Activity Codes and Health Categories must also be allocated a percentage relevance to the research.

The percentage allocated for each code represents a proportion of the total award value. The **total percentage allocated on each dimension must add up to 100%** to ensure there is no double counting of award funds.

Use the minimum number of codes to reflect the main focus of the research.

Multiple codes and percentage allocations

Multiple codes should be equally apportioned across the assigned codes e.g. two codes should be apportioned 50% each. This means apportioning equal percentages should be limited to the following options:

Two Codes = 50%, 50%

Three Codes = 33.33%, 33.33%, 33.33%*

Four Codes = 25%, 25%, 25%, 25%

Five Codes = 20%, 20%, 20%, 20%, 20%

~~, three codes 33.3% each etc.~~ Exceptions to this rule can only be made in circumstances where different emphases of research aims are ~~clearly~~ specifically stated in the research objectives, and then only in the following combinations: 75%/25%; 66.66%/33.33%; 50%/25%/25%. No other percentage allocations should be used~~. however unequal apportionments should be avoided if possible.~~

* Note: we are aware that different grant management systems handle one third percentage allocations in different ways (e.g. 33, 33.3, 33.33 even 34/33/33). For analyses we recommend using a minimum of two decimal places.

How to assign Health Categories: advice on HCs page

Reason: align updates to Generic to rest of advice.

The Generic Health Relevance category should be used in cases where the research is applicable to all diseases and conditions or to general health and well-being **or** directly applicable to more than **five** categories. If the main focus of the research is directed at several specified diseases and also has implications for many other conditions / general health, the appropriate specific categories should be used **as well as** applying the Generic category. See guidance on case studies, exemplars and tracer conditions and *sequelae, consequences and side effects* for more details.

Also note that the Disputed Aetiology and Other category is rarely used and only in specific circumstances.

Common mistakes: new webpage (and update PDF too?)

Located: not on website (on PDF only, available here)

Reason: valuable tool in training, not used or easily found on website.

Trial version set up on new WiP website:

http://hrcsonline.binarydev.net/index.php/getting-started/common-mistakes/