Completed RLOs

(http://www.rlo-cetl.ac.uk/whatwedo/rlos/completedrlos.php)

Learning objects in our repository available for use, listed by subject area. All the RLOs are free for use and repurposing for educational, non-commercial purposes.

Health Sciences

(http://www.rlo-cetl.ac.uk/whatwedo/rlos/completedrlos.php#hs)

Clinical Skills

- Hand Hygiene

(http://intralibrary.rlo-cetl.ac.uk:8080/intralibrary/open_virtual_file_path/i843n17166t/handwashing/index.html)

Practical hand hygiene techniques for infection control.

Ethics

- Informed Consent

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i843n19266t/index.html)

An RLO that explains why consent is required in a treatment setting. It describes levels of consent, the need for informed consent and the history of informed consent.

- Should Sarah smack her child?

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i2248n3031t/index.html)

This RLO explores the ethical dimension and different views surrounding the use of mild smacking as a means of punishment. Should Sarah smack her child? This RLO introduces you to a range of stakeholders with differing viewpoints and allows you to record your own responses to their opinions.

- Why do we need Confidentiality?

(http://www.rlo-cetl.ac.uk:8080/IntraLibrary?command=open-preview&learning_object_key=i07n9426t)

Presents the principles of confidentiality and key concepts of consent, privacy, trust, public interest and disclosure. A generic case conference approach enables users to consider and respond to the potential disclosure of genetic, disease and behavioural information.

Evidence-based Practice

- Confidence Intervals

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i2248n10044t/index.html)

This RLO defines the term 'confidence intervals' and demonstrates how they can be used to determine the significance and range of possible sizes of a treatment effect.

- Designing a questionnaire

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i281n6662t/design/index.html)

This RLO introduces good practice in questionnaire design, step by step.

- Determining the importance of clinical trial results

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i562n25119t/index.html)

This RLO demonstrates how to interpret and use clinical trial data (ARR, RRR, NNT, NNH, and confidence intervals) in practice.

- Meta-analysis

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i562n18347t/index.html)

This RLO provides an introduction to the basic concepts of meta-analysis, which is an important and valuable tool for summarising data from multiple studies.

- Presenting and interpreting Meta-analysis

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i2248n11604t/meta-analysis2/index.html)

How to present and interpret the results of a meta-analysis using forest plots.

- Numbers needed to treat, numbers needed to harm

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i1686n8283t/index.html)

This RLO considers how to measure and interpret the magnitude of effect in clinical trial results using number needed to treat (NNT) and number needed to harm (NNH).

- Positive Predictive Values Negative Predictive Values

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i281n10604t/index.html)

This RLO explains how diagnostic test results are a combination of true and false positive, or true and false negative.

- Qualitative and quantitative research

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i2529n6682t/index.html)

Outlining the distinction between qualitative and quantitative methods of doing research.

- Relative risk reduction and absolute risk reduction

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i843n1923t/index.html)

This RLO considers how to measure and interpret the magnitude of effect in clinical trial results using relative risk reduction (RRR) and absolute risk reduction (ARR).

- Search Strategy for randomised control trials

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i2529n26019t/rctsearch/index.html)

Introduction to search strategies for locating randomised controlled trials (RCTs) in online databases.

- Sensitivity and Specificity

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i2529n8103t/index.html)

This RLO explains how diagnostic test accuracy is described by the terms sensitivity and specificity. Sensitivity describes the accuracy of the test in detecting disease. Specificity describes the accuracy of the test in detecting health.

- SI Units

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i1405n24399t/index.html)

To identify what SI units are, when they are used, and how to calculate unit changes.

- Steps in conducting a systematic review

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i1967n7942t/systematic_reviews/index.html)

This RLO describes the various stages in conducting a systematic review and the issues that are encountered at each step.

- Surrogate outcomes

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i1405n13404t/index.html)

This RLO considers the type of evidence which should be used when making decisions about patient care.

Foundation Sciences

- Acids, alkalis and bases: Introduction

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i562n7443t/acid_base_intro/index.html)

Defining and explaining acids, bases, and alkalis, from an ionic standpoint, and introducing the pH scale.

- Acids, alkalis and bases: Further application

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i843n9884t/acid_base_further_app/index.html)

Examining the operation and application of acids, bases and alkalis, including neutralisation, acid/base reactions, and salts.

- Concentration Gradients

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i1405n2871t/gradients/index.html)

This RLO describes the concept of concentration gradients in biological systems through analogy with gradients found in everyday life, and outlines passive and active transport across cell membranes.

- Elements that make up the human body

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i1405n5602t/body_elements/index.html)

Introducing the periodic table of elements, and identifying the major elements involved in the human body and their roles.

- Homeostasis

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i2529n8913t/index.html)

Introduction to the principles of homeostasis.

- Osmosis and Diffusion

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i1405n5262t/index.html)

Explaining the difference between the processes of diffusion and osmosis, and introducing the concepts of concentration gradients and tonicity.

- Solutions and electrolytes

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i281n24939t/solutions/index.html)

Examining the mechanisms of chemical solution and how solvents work, and the roles of ions and electrolytes in chemical activity within the body.

- Starling's Forces

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i1405n11524t/index.html)

An examination of the roles of hydrostatic and oncotic pressure in movement of fluid and gases across the capillary wall.

- Structure of the Atom

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i2248n23949t/index.html)

An introduction to basic atomic structure.

Gateways to Health

- Gateways to Health

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i1686n31059t/index.html)

A suite of decision based RLOs that cover health related topics. There are individual RLOs on Arthritis, Bad Back, Bloated, Cholesterol, Crying Baby, Discharge, Drugs, Hot Flushes, Incontinence, Indigestion, Sick Child, Smoker's Cough, Toothache.

Genetics

- ACCE Framework

(http://www.rlo-cetl.ac.uk:8080/IntraLibrary?command=open-preview&learning_object_key=i684n9543t)

This RLO is an introduction to the ACCE framework, a helpful model used in genetic test evaluation.

- Basics of DNA

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i1405n9573t/index.html%20target=)

Animated examples of the techniques developed for detecting, copying, and sequencing DNA.

- Clinical Utility

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i843n9603t/index.html)

This learning object covers the topic of clinical utility of genetic information. The object focuses on genetic information associated with colorectal cancer.

- Genes, Disease & Health Services

(http://www.rlo-cetl.ac.uk:8080/IntraLibrary?command=open-preview&learning_object_key=i06n10955t)

A multimedia quiz on Genes, Disease and Health Services.

- Genetic Variation & Disease Susceptibility

(http://www.rlo-cetl.ac.uk:8080/IntraLibrary?command=open-preview&learning_object_key=i1197n1731t)

An Adobe Presenter presentation on Genomics. It looks at how genetic variation can affect susceptibility to diseases.

- Genomics - Ethical, Legal & Social Issues

(http://www.rlo-cetl.ac.uk:8080/IntraLibrary?command=open-preview&learning_object_key=i09n3422t)

This object captures a presentation on the ethical, legal and social aspects of genetic testing.

- Identifying specific genetic variants related to disease susceptibility

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i1405n3281t/index.html)

The RLO looks at linkage and gene-disease association studies to assess their usefulness in explaining why certain people suffer specific diseases and others do not.

- Influencing Practice: Genetics in Disease Prevention

(http://www.rlo-cetl.ac.uk:8080/IntraLibrary?command=open-preview&learning_object_key=i1368n3442t)

An Adobe Connect application that captures a presentation made on the subject of the use of Genetics in disease prevention.

- Moral Theories

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i281n12884t/index.html)

This learning object describes the moral theories that are used to justify or clarify health care professionals' clinical decisions.

- Patents

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i843n3231t/index.html)

A learning object that describes how drugs can be patented. The topics covered include: what is necessary for a patent, how to file for a patent and what can and cannot be patented.

- Pharmocogenomics

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i2248n26088t/index.html)

This RLO introduces Pharmocogenomics - the study of genetic influences on an individual's response to drugs.

- Public Health Genetics

(http://www.rlo-cetl.ac.uk:8080/IntraLibrary?command=open-preview&learning_object_key=i1197n14229t)

An Adobe Presenter presentation delivered by Ron Zimmern. An overview of Public Health Genetics.

- Using Twin & Adoption Studies

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i1124n16355t/index.html)

This learning object looks at the use and effectiveness of twin and adoption studies to enrich our understanding of the contribution of genetics and environmental factors in disease causation.

Human Life Sciences

- The Anatomy of the Liver

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i843n28008t/liveranatomy/index.html)

This RLO outlines the anatomy of the liver.

- Physiology of the Liver

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i1405n17555t/index.html)

This RLO outlines the physiology of the liver.

- The Liver and Drug Metabolism

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i562n31419t/liverdrug/index.html)

The role of the liver in the metabolism of drugs.

- Cell division

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i1405n11364t/celldivision/index.html)

To identify the importance of cell division and briefly describe mitosis and meiosis.

- Glomerular filtration Pressure

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i2529n22808t/gfr/index.html)

The RLO deals with the opposing forces within the glomerulus and the Bowmans capsule which together create the glomerular filtration pressure. The RLO builds on the Starlings Forces RLO by the same author and is intended to form the basis for a future RLO on glomerular filtration rate.

- The Inflammatory Response

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i562n7208t/index.html)

Describes the inflammatory response - a series of local cellular and vascular responses which are triggered when the body is injured or invaded by micro-organisms or antigen.

Pharmacology

- Calculating Medicines for Children

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i281n20447t/childcalc/index.html)

This RLO is aimed at providing examples of how to calculate medicines, specifically for children but it relates well to any aspect of calculating medicines.

- Drug Receptor Interactions

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i562n7683t/index.html)

Introduction to the interaction of cell receptors with drugs.

- Lock and Key Hypothesis

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i1405n5222t/index.html)

Introducing the "lock and key" analogy of drug-receptor interaction, whereby only drugs of a certain molecular shape will 'fit' with a cell membrane receptor.

- Plasma Proteins and Drug distribution

(http://www.rlo-cetl.ac.uk:8080/open_virtual_file_path/i562n3321t/index.html)

Examining the role of plasma proteins in the blood in the distribution and elimination of drugs in the body.