

Discovery research to gain knowledge
D1-D4

Patient centred research
T1-T3

Changes to healthcare,
practise or treatment T4

D1
No clinical,
practical or
commercial
application

D2
Disease focus

D3
Practical
outcome
Proof of
concept

D4
optimisation

T1
First
evaluations
in/ with
people

T2
Statistical
relevance
reached

T3
Evaluated
more widely

T4
Adopted by
population
health and
policy

Translatable research

Translational research

D1: Pure basic research to gain knowledge

D2: disease-related or oriented/ strategic research: To obtain new insight or a starting point for diagnosis, treatment or prevention.

D3: when the initial outcome of D2 research has been identified and its link to the disease has been confirmed

D4: when the target from D3 is manipulated to confirm disease association.

T1: when a new method or treatment is first validated in humans

T2: when a statistically relevant number of events demonstrate the efficacy of the new approach

T3: when the new approach is being tested more generally

T4: translating findings to population health

Examples:
Genomewide association studies for disease-related genes.
Epidemiological studies to identify links between environmental factors and disease.
Establishing connections between imaging data and disease.
Correlating genomics or proteomics and disease.

Examples:
target molecule or metabolic pathway identified and confirmed

Examples:
Identifying a small molecule that alters target activity in a model system.
A diagnostic system based on a biomarker.
Stimulation or blocking of an immune response.

Examples:
Phase 1 clinical trial
First use of a device in a small target population
First use of software in a clinical validation study
Initial validation of a lifestyle intervention

Examples:
Phase 2 and 3 clinical trials
Greater number of patients testing a device or lifestyle intervention
Multiple clinical sites using newly developed software

Examples:
Phase 4 trials
Use of device or intervention being routinely used
Software identified as superior to existing tools

Examples:
Adoption into policy and/ or guidelines as a routine method or approach