

Visualization of Knowledge Graph

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Introduction

In this visualization, knowledge graphs of clinical trials are represented, by linking clinical trial id to on what Conditions trial is conducted, what type of Interventions are employed during trial and what articles are being cited.

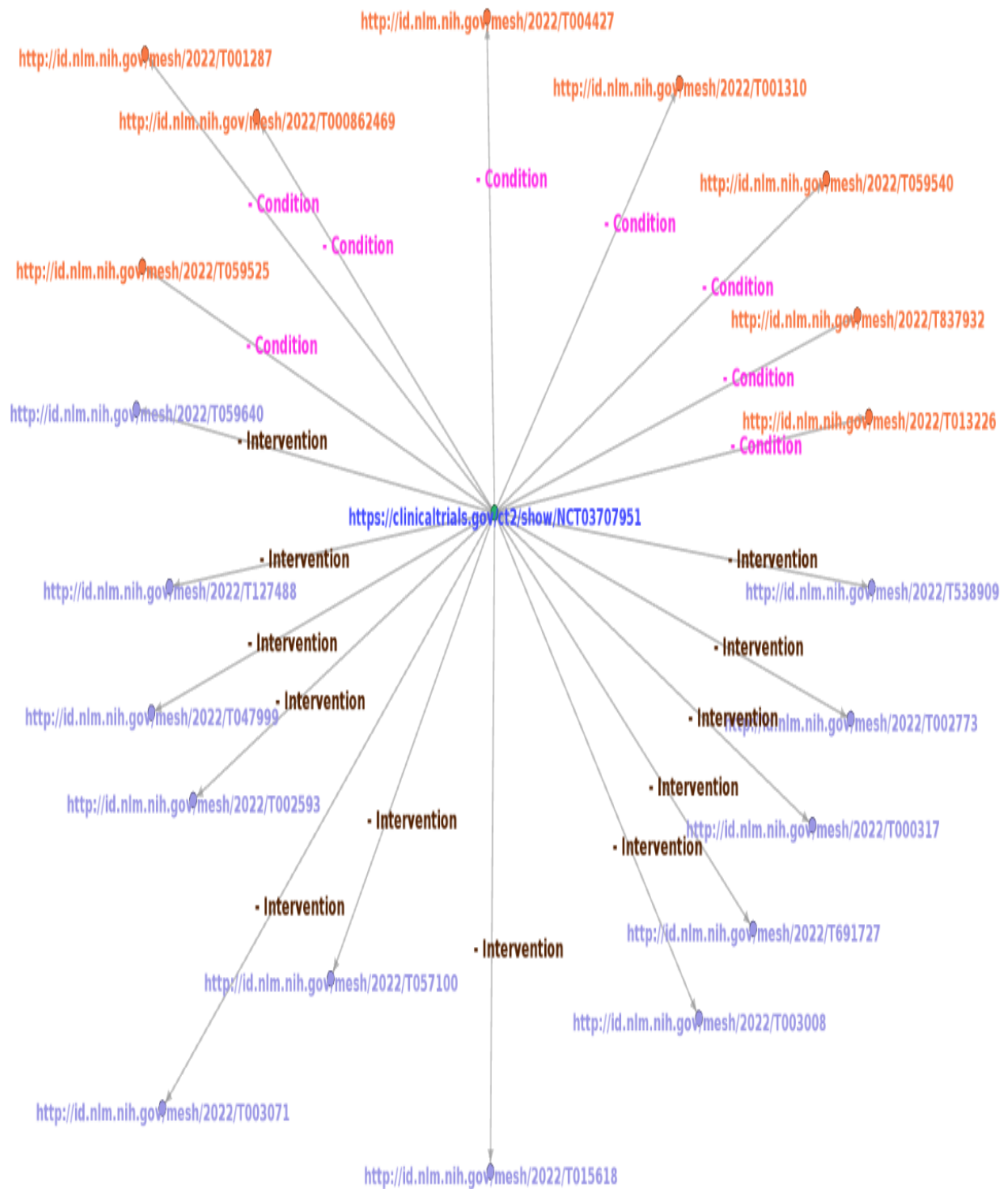
In visualization of knowledge graphs, the Source is the **center node**, which is a **trial link**.

Nodes around the center node(**periphery nodes**) are target nodes, which are **Links to Conditions, Interventions and Articles**.

Edges create links between source and targets. They establish a relationship between two nodes and type relation is labeled on edges. Here, there are three **types of relations ie., Conditions, Interventions and Pubmed articles**.

A trial can be conducted on different conditions and interventions which are defined by the MeSH(Medical Subject Headings) term. So a trial will have one or more conditions and interventions.

NCT



Description

- <https://clinicaltrials.gov/ct2/show/NCT03707951> represents the link to trial details. NCT03707951 represents the trial ID. and it was registered with the National Clinical Registry of USA. Trial title is **“A Proof-of-Concept Trial of N-Acetylcysteine for Adolescent Alcohol Use Disorder”**.
- <http://id.nlm.nih.gov/mesh/2022/T001310> represents the link to the condition of trial. T001310 represents the MeSH id for **“Alcoholism”** condition.
- <http://id.nlm.nih.gov/mesh/2022/T057100> represents the link to intervention in trial. T057100 represents the MeSH id for **“Respiratory System Agents”** intervention.

ACTRN

<https://anzctr.org.au/Trial/Registration/TrialReview.aspx?ACTRN=12615000463572>

- Pubmed_Article

<https://pubmed.ncbi.nlm.nih.gov/26171392>

Description

- <https://anzctr.org.au/Trial/Registration/TrialReview.aspx?ACTRN=12615000463572> represents the link to trial details. ACTRN12615000463572 represents the trial ID. and it was registered with the Australian New Zealand Clinical Trial Registry. Trial Public title is **“Management of Postoperative Pain After Total Knee Arthroplasty”**.
- <https://pubmed.ncbi.nlm.nih.gov/26171392> represents the link to the article cited with respect to trial. Title of article is **“Analgesic Effects of Intra-Articular Bupivacaine/Intravenous Parecoxib Combination Therapy versus Intravenous Parecoxib Monotherapy in Patients Receiving Total Knee Arthroplasty: A Randomized, Double-Blind Trial”**.

CTRI

<http://www.ctri.nic.in/Clinicaltrials/pmaindet2.php?trialid=5539>

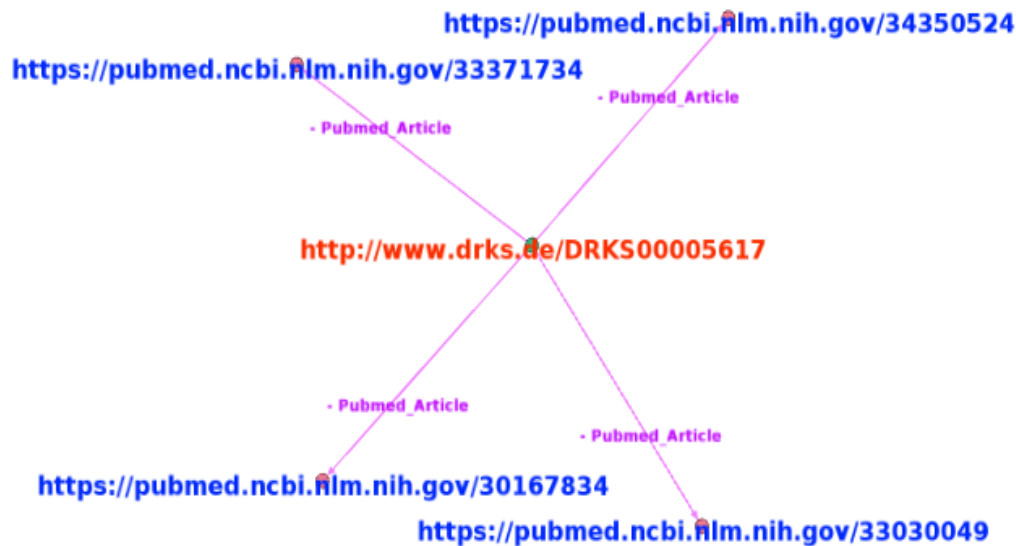
- Pubmed_Article

<https://pubmed.ncbi.nlm.nih.gov/31809224>

Description

- <http://www.ctri.nic.in/Clinicaltrials/pmaindet2.php?trialid=5539> represents the link to trial details. It was registered with Clinical Trials Registry of India. Trial Public Title is **"A clinical trial to study the effects of two Anti-CD20 monoclonal antibodies in combination with CHOP in patients with diffuse large B-cell Lymphoma."**
- <https://pubmed.ncbi.nlm.nih.gov/31809224> represents the link to the article cited with respect to the trial. Title of the article is **"Randomized, Double-Blind, Pharmacokinetic Equivalence Trial Comparing DRL-Rituximab With MabThera in Patients With Diffuse Large B-Cell Lymphoma"**.

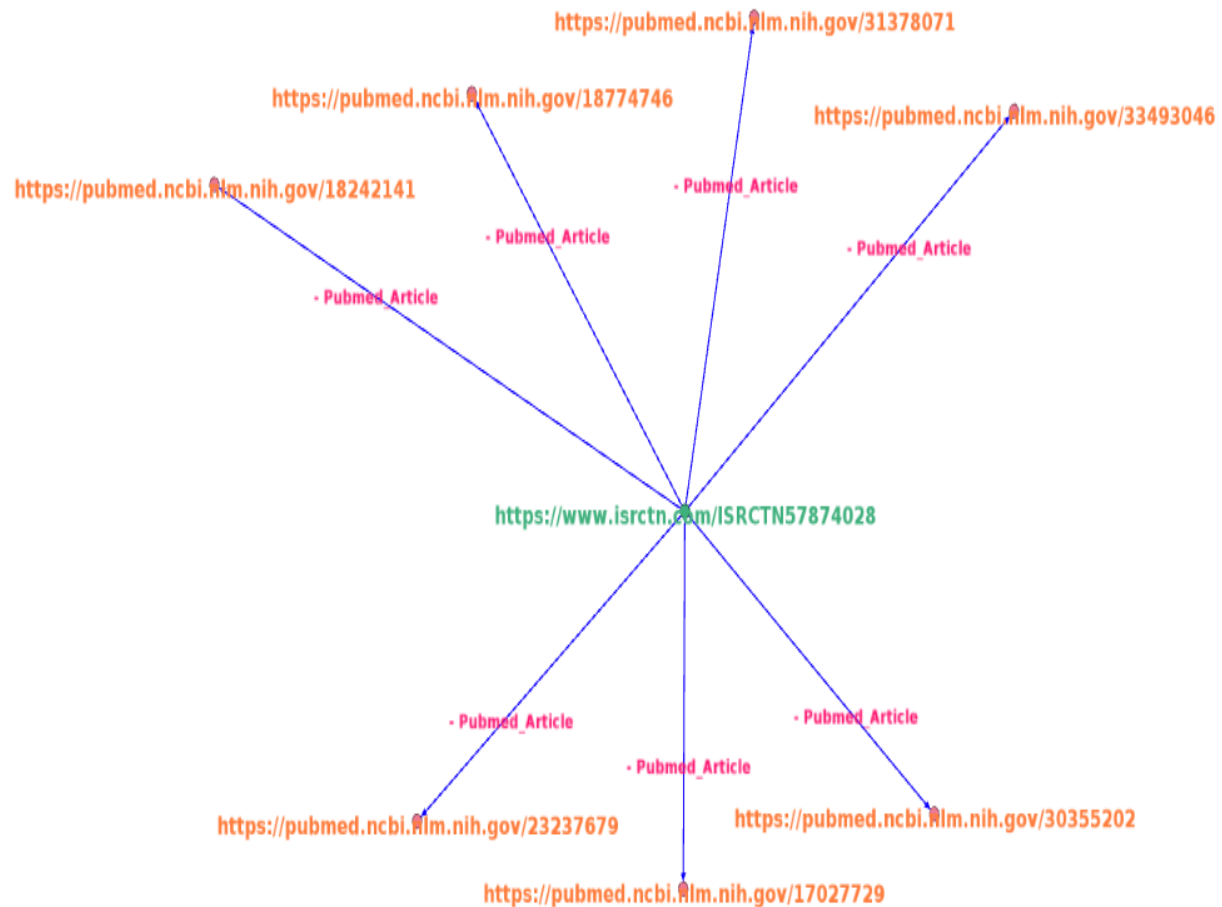
DRKS



Description

- <http://www.drks.de/DRKS00005617> represents the link to trial details. DRKS00005617 represents the trial ID, and it was registered with the German Clinical Trials Register. Trial title is **“A Registry for Evaluation of Efficiency and Safety of Surgical Treatment of Cartilage Defects of the knee”**.
- <https://pubmed.ncbi.nlm.nih.gov/30167834> represents the link to the article cited with respect to the trial. Title of the article is **“What parameters affect knee function in patients with untreated cartilage defects: baseline data from the German Cartilage Registry”**.

ISRCTN



Description

- <https://www.isrctn.com/ISRCTN57874028> represents the link to trial details. ISRCTN57874028 represents the trial ID, and it was registered with the International Standard Randomised Controlled Trial Number. Trial title is **“Stent-protected Percutaneous Angioplasty of the Carotid artery versus Endarterectomy”**.
- <https://pubmed.ncbi.nlm.nih.gov/31809224> represents the link to the article cited with respect to the trial. Title of article is **“Absence of Consistent Sex Differences in Outcomes From Symptomatic Carotid Endarterectomy and Stenting Randomized Trials”**.