

How to use the web platform to annotate biomedical entities

First, click on the following website address (if it does not work, please, email us, asap): <https://promoting-connection-closing-raw.cloudflare.com>

NOTE1: Every time, when you enter the annotation page, please, open this document and follow the address posted on this page.

NOTE2: Please, prioritize the annotation and flagging of historical entities and prioritize entity types: disease, symptom, anatomy, phenotype. You can check the details about the classes of the ontology that we use — here:

<https://bioportal.bioontology.org/ontologies/DOID?p=classes>

Prioritize the entities that are important for the further analysis of:

- 1. Cause-based classification of disease** (Infectious, Genetic, Environmental, Nutritional Deficiency, Poisoning, Immune system disease, Metabolic disease)
- 2. Classification based on the affected anatomical system**
(cardiovascular, respiratory, digestive, nervous, reproductive, musculoskeletal)
- 3. Symptom-based and Syndrome Classes** (Syndrome, Pain disorder, Inflammatory disease, fever-related, paralysis, etc.)
- 4. Classifications related to Social constructs** (mental disorder, behavioural disorder, developmental disorder)

The page includes the following sections relevant to you:

Entity Linking Annotation Tool

Total Samples: 466 Annotated: 8 Auto Entities: 437 Manual Entities: 51

File: BMJ_1929_03_16_vol001_nr3558_art043_pmc2450088.txt Line: 44

1. Text

R. (1929) (January, 1929, p. 371) defines **cretinism** as a condition characterized by **dwarf growth** associated with **goitre**. It occurs among the children of **goitrous** or **cretinous** parents in districts where **goitre** and **cretinism** are endemic, or sporadically in goitre free districts in the children of healthy parents. Cretinism is due to deficiency in the **thyroid gland** and is allied to the **myxoedema** of adults. There are three definite forms of cretinism, and **cachexia strumiprava**, the two former developing in infancy or early childhood, the latter in adult life. C. Cretinism may supervene after some infectious illness, such as **measles** or **whooping cough**. Sufferers from endemic **cretinism** are frequently dwarfs, from forty to sixty inches in height when fully grown, with short, broad bodies. The neck is short and thick, the abdomen large and pendulous, the forehead low, broad, and sloping, and the nose flat; the eyes are small and widely separated. The legs are short and sometimes crooked, with weak, ill developed muscles. Idiocy is an essential part of **cretinism**. Sporadic **cretinism**, unlike the endemic type, is not associated with **goitre**, but with a wasting or absence of the thyroid body; the outward signs are, however, very similar. It is characteristic of **cretinism** that the ossific centres are very late in appearing in the cartilaginous epiphyses, and the evidence of delayed endochondral ossification is well marked in the spine. The body is usually very diminutive, its true conjugate being two thirds and its breadth only half the normal dimensions. The chief features of the histology of **cretinism** are: a diminution in the amount of cartilage proliferation in the ossification zones, the formation of a continuous layer of bone separating the

2. Annotations

3. Entity records

Detected Entities

"**goitre**"

MANUAL

ID ENTITY ID DOID:1459

NAMESPACE DOID

STATUS FLAG None (default)

Default: treat this entity as currently relevant.

POSITION IN TEXT 247 – 253

Remove Entity

4. Navigate and Save Buttons

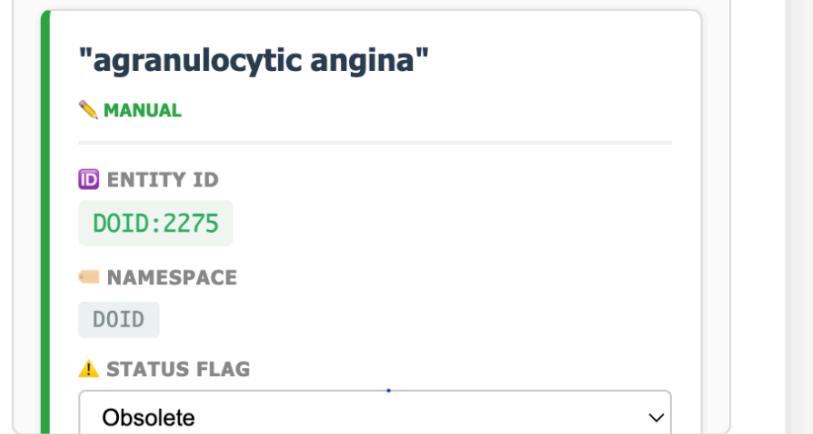
Previous Next Save Current

Sample 7 of 466

Sample Index: 7 of 466 Go File: BMJ_1929_03_16_vol001_nr3558_art043_pmc2450088.txt Show Automatic Labels

1. First, hide the annotations that were made automatically.

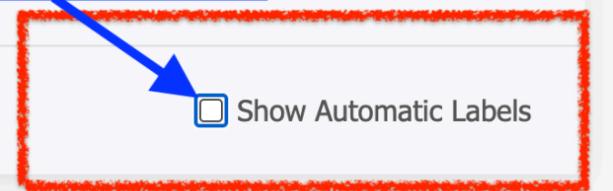
are the organisms usually found in the throat. The blood shows a
sappear completely, but there is also a lymphocytic diminution, which
exhibit only slight changes. Blood cultures are positive in only 10 per cent.,
occus viridans, B. pyogenicus, B. cidiilactis, and B. coli. The disease is at
aged; it is apparently non contagious. The prognosis is bad, but not
serum and z ray applications to the long bones.



1. Uncheck this box in the bottom-right corner of the page

001_nr3558_art043_pmc2450088.txt ▾

Sample 1 of 466



2. To create a new manual annotation, select a text span with the mouse or touchpad. It can be single or multi-word, as below. A **Biomedical Entity** can be *disease, symptom, anatomy, phenotype, chemical entity, food material*, etc.. Do not include punctuation in the span.

File: BMJ_1929_03_16_vol001_nr3558_art043_pmc2450088.txt
Line: 11

W. C. HUEPER (Arch. Intern. Med., December, 1928, p. 893) recalls that Schultz, in 1922, described a type of necrotic angina accompanied by a marked absolute and especially granulocytic leucopenia, and regarded these symptoms as manifestations of a disease which he called "agranulocytosis." Since then about 125 cases have been recorded under this name or that of "agranulocytic angina" (Friedemann). Hueper now records observations on five cases seen between November, 1927, and April, 1928. The etiology is unknown. Most authorities regard it as an infectious disease represented by a septicaemia with an atypical reaction of the haemopoietic system, due either to bacteria with a special affinity and toxicity to the granulocytic system or to an atrophy and aplasia of this organ caused by septic infection. According to these investigations he had a case of a severe non septic septic or specific (septicocele, B. pyogenicus, or fusosporilis). The disease starts after a period of prolonged ill health, or, more frequently, in previously healthy subjects, with high continued fever, malaise, dyspnoea, and dyspnoea; slight injuries are present in about 50 per cent. The patient rapidly gets worse, and death occurs after coma of two to seven days' duration; there may be rare remissions of a few days to several weeks. The outcome is usually fatal. At the onset the tonsils are enlarged and reduced, and show yellowish white plugs, which merge to form dirty grey or yellowish coats; on removal of these an ulcerated surface appears. Sloughing of the tonsils rapidly ensues, and a similar necrotic process may be found on the pharynx, uvula, palate, tongue, pharynx, gums, anus, vulva, vagina, and pneumococci are the organisms usually found in the throat. The blood shows a first and may disappear completely, but there is also a lymphocytic diminution, which cells are normal or exhibit only slight changes. Blood cultures are positive in only 10 per cent, streptococci, Streptococcus viridans, B. pyogenicus, B. cidi, B. lactis, and B. coli. The disease is affects the middle aged; it is apparently non contagious. The prognosis is bad, but not anti streptococcus serum and z ray applications to the long bones.

In the text, select a span corresponding to a MEDICAL ENTITY

TYPES OF ENTITIES THAT YOU CAN ANNOTATE:

- 1.Anatomy
- 2.Cell type
- 3.Chemical / chemical exposure / environmental agent
- 4.Symptom
- 5.Phenotype
- 6.Genetic risk factors / inheritance / susceptibility
- 7.Onset (age, time of onset)
- 8.Taxonomy (of pathogens / organisms)
- 9.Transmission method (for infectious diseases)
- 10.Disease-driver / environmental-factor

To help simplify the annotation process, we would like to suggest the following:
If you are unsure which **fine-grained label** corresponds to an entity, but you can confidently identify a **broader category**, please feel free to use the broader label.
For example, instead of selecting a highly specific disease class, you may label the entity with one of the following higher-level terms:

"immune system disease" - DOID:2914
"disease by infectious agent" - DOID:0050117
"genetic disease" - DOID:630
"disease of metabolism" - DOID:0014667
"nutritional deficiency disease" - DOID:5113
"cognitive disorder" - DOID:1561
"lymphatic system disease"-DOID:75
etc..

If assigning even these broader categories is difficult, you may label the textual span simply as:

- *disease* — DOID:4

Similarly, higher-level categories are available for other entity types. These can be used whenever a more specific label cannot be confidently selected:

"symptom" - SYMP:0000462,

"anatomy" - UBERON:0001062,

"phenotype" - UPHENO:0001001,

"chemical entity" - CHEBI:24431,

"disease driver" - DISDRIV:0000000 (Environmental or genetic mechanisms driving the occurrence of complex diseases)

"evidence" - ECO:0000000 (A type of information that is used to support an assertion)

"food material" - FOODON:00002403

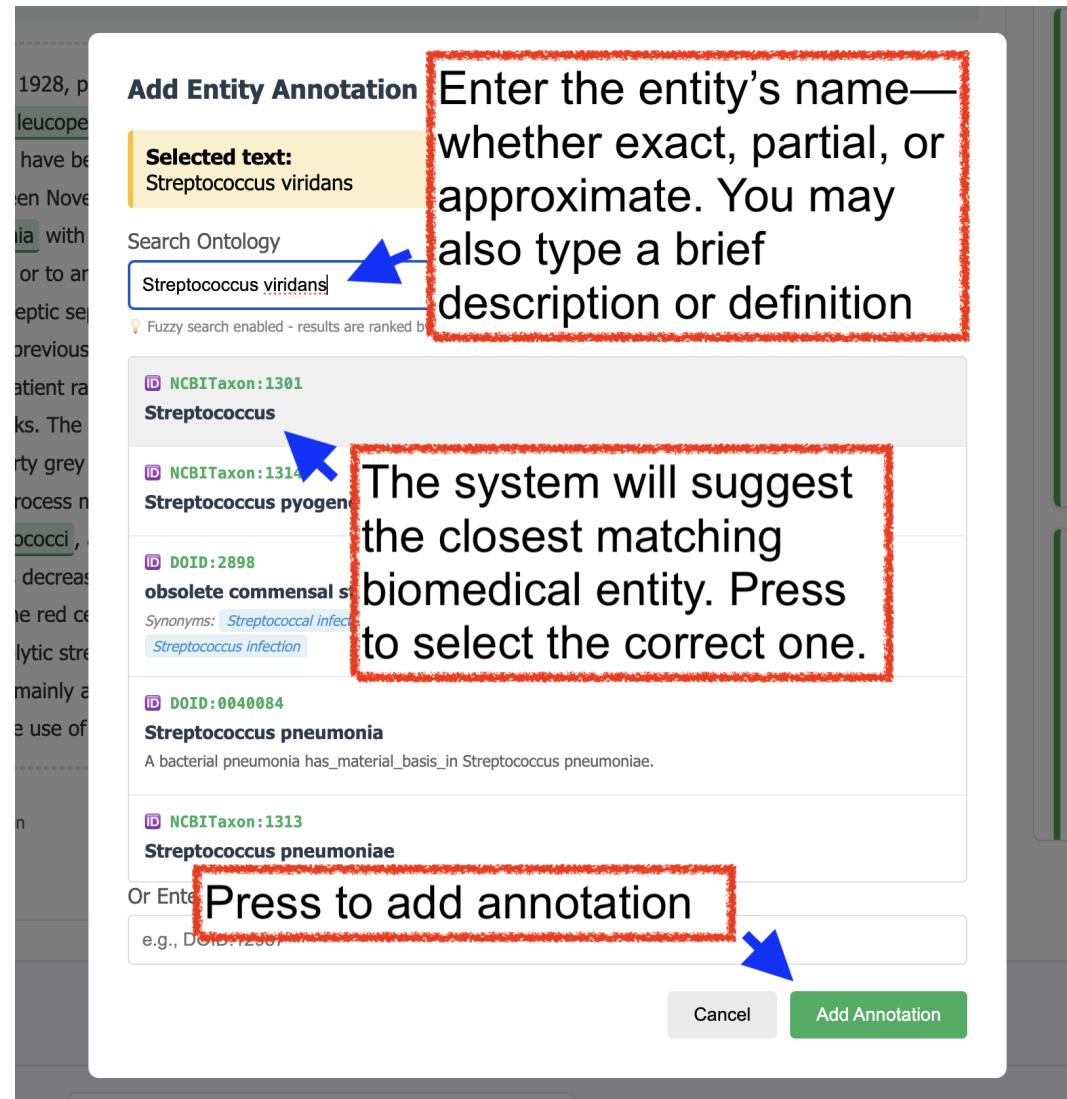
(this broad classes can also be used in the annotation in case a more fine-grained option cannot be found)

"transmission process" - TRANS_0000000

If you are a historian of medicine, you are encouraged to use broader labels for annotation.

3. When a span is selected, a **search window** will appear. It enables search of the entity in the Human Ontology of Disease.

NOTE: Search for a parent entity, if no exact entity can be identified: e.g., for “Streptococcus Viridans”, a parent entity can be “Streptococcus”



4. When you close the search window, you will see the annotation you just made on the right under “Detected entities.” Here, flag the entity as “historical”, “obsolete” or “None”. The differences between historical and obsolete are minor.

- *Obsolete terminology* refers to terms that are completely out of use today / adopted a different meaning.
- *Historical* means that it is still understood by modern medical professionals but used mainly in historical contexts.

The Human Disease Ontology also contains terms whose name starts with “obsolete” (type “obsolete” in the search field to see them). There, it serves for 1) the terms that do not represent a disease, these may include injuries, symptoms, phenotypes or terms that are no longer considered valid by the research community; 2) when two disease terms were merged into one. Example of an obsolete term due to not being a disease [Term] id: DOID:1000 name: Uterine Rupture synonym: "Rupture of uterus (disorder)"

Below you can find the instruction on where to flag the terms when you created an entity.

a) Find the entity record and the status flag:

The screenshot shows a text editor interface with a sidebar titled "Detected Entities".

Annotated Spans: A red box highlights the text "cretinous" in green, with a blue arrow pointing to it. Another red box highlights the text "Find STATUS FLAG, click on the drop-down menu" in black, with a blue arrow pointing to the word "FLAG".

Detected Entities Sidebar:

- "cretinous"**
- MANUAL**
- ID ENTITY ID**: DOID:1059
- NAMESPACE**: DOID
- STATUS FLAG**: Obsolete (highlighted with a green border)
- Obsolete or incorrect mapping. Ignore for downstream linking.
- POSITION IN TEXT**: 210 – 219
- Remove Entity**

b) Select the appropriate flag in the drop-down menu

The image shows a text editor interface on the left and a detailed view of a detected entity on the right.

Text Editor (Left):

characterized by dwarf growth associated with parents in districts where goitre and cretinism are n is due to the insufficient supply of the secretion of the tinct conditions—endemic cretinism, sporadic cretinism, he latter, which follows the removal of the thyroid, usually meas
n sh
ne e
t of cretinism. Sporadic cretinism, unlike the endemic : outward signs are, however, very similar. It is inous epiphyses, and the evidence of delayed , its true conjugate being two thirds and its breadth only

Detected Entities View (Right):

"cretinous"

MANUAL

ID ENTITY ID
DOID:1059

NAMESPACE

DOID

- None (default)
- Historical
- Obsolete

Obsolete or incorrect mapping. Ignore for downstream linking.

POSITION IN TEXT
210 – 219

Remove Entity

A red box highlights the text "Select the appropriate flag if the entity is obsolete". A blue arrow points to the "Obsolete" option in the dropdown menu.

5. Continue assigning labels (and flagging) the entities, prioritizing the historical ones. Some items may already appear in green because another expert has annotated them, but please still add your own label—your vote helps us confirm whether several experts agree. If the text you want to select does not match exactly with what another expert highlighted, choose the wording or span that you believe is correct.

6. If you need to remove the labels that you have assigned incorrectly, **point** to the entity that you want to remove (in the text) with the mouse and go to the the entity record on the right:

The image shows a user interface for entity detection and management. On the left, a text snippet from a document is displayed, with several words highlighted in green boxes: 'wth', 'tre', 'cretinism', 'cretinism', 'sporadic cretinism', 'removal', 'thyroid', 'usually', 'Sufferers', 'endemic', 'neck', 'short', 'thick', 'separated', 'legs', 'nism', 'very', and 'dence'. On the right, a modal window titled 'Detected Entities' is open, showing details for the entity 'dwarf growth'. The entity record includes the following fields:

- MANUAL**
- ID ENTITY ID**: HP:0004322
- NAMESPACE**: HP
- STATUS FLAG**: Obsolete
- POSITION IN TEXT**: 107 – 119

A large blue box highlights the text "Press this button to remove entity" overlaid on the interface. A blue arrow points from this text box towards the red "Remove Entity" button at the bottom right of the entity record.

7. When you are done annotating a text, press “Save Current” and then “Next” to move to the next text (bottom-left corner of the page).

endochondral ossification is well marked in the spine. The body is usually very diminutive, its true size being only about half the normal dimensions. The chief features of the histology of cretinism are: a diminution in the number of ossification zones, the formation of a continuous layer of bone separating the

Instructions:

- Select text with your mouse to add a new entity annotation
- Click on highlighted entities to view details
- Use the remove button to delete unwanted annotations
- Changes are saved automatically when you navigate

 Previous

Next 

 Save Current