Goal: Extract and Map Chronic Clinical Conditions

for e.g. patient summary mapped to icd 10.10
There can be multiple maps too.

You can use any LM's , HF

— Gemini, Claude Gpt4o, Deepseek

ICD 10

Free 2025 ICD-10-CM Codes

Hypertension I10: https://www.icd10data.com/ICD10CM/Codes/I00-I99/I10-I1A/I10-

Sample Data

PMC patient notes

A 15-day-old full-term, breast-fed, female neonate presented with a 3 days‚Äô history of irritability, fever, poor sucking and left preauricular swelling []. She was born at full-term by normal vaginal delivery in an uneventful pregnancy, and her birth weight was 2950 g. On admission, the baby was irritable and dehydrated, and her weight was 2800 g and axillary temperature was 38.5¬∞C. Examination revealed a toxic neonate with erythema and a hot and fluctuant swelling of the left parotid gland of size 5 cm √ó 5 cm. Pus exuded from the left Stensen's duct on applying pressure on the external surface. Systemic examination was otherwise unremarkable. Aspiration of the swelling revealed thick pus.\nLaboratory tests revealed haemoglobin 13 g/dl, white blood cells 17.6 √ó

109/L, urea 4.5 mg/dl, sodium 142 mmol/dl, potassium 5.2 mmol/dl and chloride 109 mmol/dl. Ultrasound of the parotid glands demonstrated an **enlarged left parotid gland** with hypoechoic areas with a few pockets of thick pus which is suggestive of acute suppurative parotitis [].\nRehydration of the baby was done with intravenous fluid and was started on intravenous cefotaxime (100 mg/kg/day) at the time of admission. The parotid abscess was surgically drained [], and the patient showed gradual improvement. The pus culture showed methicillin-resistant S. aureus. In spite of gradual improvement, the antibiotic treatment was switched to intravenous vancomycin (40 mg/kg/day) according to the pus culture. The treatment was continued for 10 days with complete recovery. On follow-up examination, there was no residue or abnormality of the gland, and she did not show chronic recurrent parotitis.

	A	B	C	D	E	F	G	H	I	J
1	patient_id	patient_uid	PMID	file_path	title	patient	age	gender	relevant_arti	similar_patients
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3	157079	3286731-1	22375183	noncomm/PI	A Novel Fran	A 2-year-old	[[2.0, 'year']]	F	{'16406649':	{'7817925-1': 1}
4	71524	5799627-1	29445458	comm/PMCC	Stevens,ÄìJo	A 2-year-old	[[2.0, 'year']]	F	{'22683226': {}	
5	108038	8161887-2	34038195	noncomm/PI	Identificatior	Patient 2 wa	[[2.0, 'year']]	F	{'28135719':	{'8161887-1': 2, '7398275-1': 1}
6	50078	8137073-1	34011076	comm/PMCC	Mutation an:	The patient v	[[2.0, 'year']]	F	{'24747594':	{'6624950-1': 1, '6624950-2': 1}
7	87868	4963990-1	27574668	comm/PMCC	Occipital pre	Case 1 (fem:	[[20.0, 'day']	F	{'12831408':	{'4963990-2': 2}
8	11229	6709018-1	31348261	comm/PMCC	A novel hom	A 2-month, 2	[[24.0, 'day']	F	{'24252324': {}	
9	10056	6629053-1	31316874	comm/PMCC	Primary Clos	A 27-day-old	[[27.0, 'day']	F	{'4003442': 1{}	
10	165999	3935114-1	24578718	noncomm/PI	A novel PRF1	The proband	[[29.0, 'day']	F	{'20383897':	{'5676276-1': 1, '7064636-1': 1, '7064636-2': 1, '7064636-3': 1, '7064636-4': 1}
11	104404	7841746-1	33564293	noncomm/PI	A Challengin	A 3-year-old	[[3.0, 'year']]	F	{'24814516':	{'5632927-1': 1, '5632927-2': 1, '5474878-1': 1, '5850893-1': 1, '5850893-2': 1}
12	116968	5380774-1	28386144	noncomm/PI	Self-healing	Girl, aged 4	[[4.0, 'year']]	F	{'32462254':	{'8243549-1': 1}
13	8183	6497199-1	31061960	comm/PMCC	Code Blue: Li	A 5-year-old	[[5.0, 'year']]	F	{'10533013':	{'6497199-2': 2, '6497199-3': 2, '5907642-1': 1, '7885148-1': 1}
14	106003	7983646-1	33776681	noncomm/PI	First Resecti	In October 2(	[[6.0, 'year']]	F	{'23241448': {}	
15	76246	4103488-1	25075281	comm/PMCC	Misleading h	A 6 year old	[[6.0, 'year']]	F	{'22342023':	{'4103488-2': 2, '5890088-1': 1, '7994764-1': 1}
16	58757	8542981-2	34707554	comm/PMCC	Case Report:	A 6-year-old	[[6.0, 'year']]	F	{'26198661':	{'8542981-1': 2, '8542981-3': 2}
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List of all Chronic conditions (Pick the first 3 categories)

In **ICD-10-CM (International Classification of Diseases, 10th Revision, Clinical Modification)**, **chronic conditions** are diseases or health conditions that are **long-lasting** and often **require ongoing medical attention** or **limit daily living activities**. These conditions span across many ICD-10-CM chapters. Here's a list of **common categories and examples** of **chronic conditions** with corresponding ICD-10-CM codes:

❤️ **Cardiovascular Diseases**

- **Hypertension** – I10

- **Coronary Artery Disease (CAD)** – I25.10

- **Congestive Heart Failure (CHF)** – I50.9

- **Atrial Fibrillation** – I48.91

🫁 Respiratory Diseases

- **Chronic Obstructive Pulmonary Disease (COPD)** – J44.9

- **Asthma** – J45.909

- **Pulmonary Fibrosis** – J84.10

🩸 Endocrine & Metabolic Disorders

- **Type 1 Diabetes Mellitus** – E10.9

- **Type 2 Diabetes Mellitus** – E11.9

- **Hypothyroidism** – E03.9

- **Hyperlipidemia** – E78.5

- **Obesity** – E66.9

🧠 Neurological Disorders

- **Alzheimer's Disease** – G30.9

- **Parkinson's Disease** – G20

- **Epilepsy** – G40.909

- **Multiple Sclerosis** – G35

- **Migraine** – G43.909

🧍 Musculoskeletal Disorders

- **Osteoarthritis** – M19.90

- **Rheumatoid Arthritis** – M06.9

- **Chronic Back Pain (e.g., low back pain)** – M54.5

- **Osteoporosis** – M81.0

🧬 Renal Diseases

- **Chronic Kidney Disease (CKD)** – N18.9 (stages N18.1 to N18.6)

- **End-Stage Renal Disease (ESRD)** – N18.6

🧠 **Mental Health Conditions**

- **Major Depressive Disorder** – F33.9

- **Bipolar Disorder** – F31.9

- **Schizophrenia** – F20.9

- **Generalized Anxiety Disorder** – F41.1

- **Post-Traumatic Stress Disorder (PTSD)** – F43.10

🧪 **Liver & GI Conditions**

- **Chronic Hepatitis C** – B18.2

- **Cirrhosis of Liver** – K74.60

- **Inflammatory Bowel Disease (e.g., Crohn's)** – K50.90

- **Ulcerative Colitis** – K51.90

🧟 **Hematologic & Immunologic**

- **Anemia (e.g., iron-deficiency chronic)** – D50.9

- **Sickle Cell Disease** – D57.1

- **HIV** – B20

🦠 **Cancer (Malignant Neoplasms)**

- **Breast Cancer** – C50.919

- **Lung Cancer** – C34.90

- **Colon Cancer** – C18.9

- **Prostate Cancer** – C61

This is not exhaustive but covers most **common chronic conditions** in clinical use. If you're working on **risk scoring**, **chronic care management (CCM)**, **HCC coding**, or **clinical decision support**, these categories are typically used to identify chronic populations.

Let me know if you want a **machine-readable list (CSV or JSON)** or a **mapping to CMS Chronic Conditions Warehouse (CCW)** list.

🚀 **Hybrid Approach?**

1. Use **LLM to generate initial weak labels** and fine-tune Clinical BERT.
2. Use **embedding retrieval for cases where the model is uncertain** (fallback mechanism).
3. Improve specificity with **contrastive learning** or **re-rankers**.