

IBM Consulting



G-Cloud 15 IBM – Clinical Coding Assistants Service Definition Document

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IBM Clinical Coding Assistant

Service Overview

IBM Clinical Coding Assistant is a **Generative AI-powered solution** designed to transform clinical coding accuracy, efficiency, and compliance. Beyond improving coding workflows, this service establishes a **foundation for high-quality data**, enabling **robust record capture** and powering **intelligent care pathways**. It also supports organisations in preparing for the **transition to ICD-11**, ensuring future-proof coding practices aligned with global standards.

Features

- **Role-Based AI Assistants Customised to Clinical Coding Standards and Workflows**
Example: Assistants tailored for inpatient, outpatient, and specialty coding teams, aligned with ICD-10, SNOMED CT, OPCS—and ready for ICD-11 migration.
- **Learn by Doing: Test, Iterate and Refine AI Assistants**
Example: Pilot deployments using real-world coding scenarios to optimise accuracy and usability before full rollout.
- **Intelligent Navigation and Decision Support**
Example: Context-aware prompts guiding coders through complex cases, highlighting missing documentation or ambiguous diagnoses.
- **Automated Code Suggestions and Validation**
Example: AI-driven recommendations for ICD-10 and SNOMED CT codes, with built-in compliance checks and ICD-11 readiness.
- **Coverage Across End-to-End Coding Workflow**
Examples:
 - Clinical documentation analysis and summarisation
 - Code assignment and validation
 - Quality assurance and audit trail generation
- **Governance, Analytics and Dashboards**
Example: Real-time dashboards tracking coding accuracy, productivity, and audit compliance.
- **Unbiased Advice on GenAI Platform and LLM Selection**
Example: Comparative evaluation of watsonx.ai and other platforms for healthcare compliance and data security.

Benefits

- **Improved Coding Accuracy and Compliance**
Example: Reducing coding errors by 25% through AI-assisted validation and real-time alerts.
- **Enhanced Productivity for Clinical Coding Teams**
Example: Cutting average coding time per case by 30%, freeing staff for higher-value tasks.
- **Foundation for Data Quality and Intelligent Care Pathways**
Example: Accurate, structured coding enables advanced analytics, population health insights, and personalised care planning.
- **Supports Transition to ICD-11**
Example: Built-in mapping and readiness tools to ensure smooth migration from ICD-10 to ICD-11.
- **Full Governance and Auditability**
Example: Every AI-generated suggestion logged for compliance with NHS and international standards.
- **Cost and Time Savings**
Example: Lower operational costs by automating repetitive coding tasks and reducing rework.

Key Differentiators

- **Healthcare-Specific AI Expertise**
IBM combines clinical domain knowledge with advanced AI to deliver safe, accurate, and compliant coding solutions.
- **Future-Proof Design**
ICD-11 readiness ensures long-term sustainability and alignment with global standards.
- **Data Quality as a Strategic Asset**
High-quality coded data powers intelligent care pathways, predictive analytics, and population health management.
- **Governance and Compliance Built-In**
Frameworks ensure ethical, secure, and auditable AI adoption across all coding processes.
- **Human-Centred Design**
Co-designed with clinical coders to ensure usability and trust in AI recommendations.

IBM Clinical Coding Assistant IBM Solution

Personas, Current Picture & User Journey

Personas



Patient

Seeks accurate information, personalised care, and timely treatment



Clinician

Requires seamless documentation, intelligent workflows without administrative burden.



Clinical Coder

Highly skilled but overwhelmed; needs augmentation, not replacement.



NHS Leader/CFO

Focused on faster throughput and claims processing, audit integrity and financial savings.

Current picture

In many healthcare systems, coders face unique obstacles. Coding processes are time consuming, often dependent on consultants, and currently ICD-10 has limited coverage in certain clinical areas making coding inconsistent and requiring repeated consultant approval. **This leads to incomplete capture, delayed revenue cycles, and coder frustration.**

Our solution alleviates these pain points by reviewing structured and unstructured data, generating draft suggested codes with explanations and highlighting uncertainty zones where clinical approval is still required, and creating summaries that may be used for care planning, coordination, claims generation, and validation.

Clinical coders see a native intelligent workflow with:

- List of patient cases to review
- AI-suggested codes (ICD 10, ICD 11, CPT) with inline explainability
- Code confidence scores
- Access to medial source material
- Ability to review suggested codes
- Ability to manually add new codes
- Get help from Agents via chat interface
- Evidence highlights directly pulled from the clinical data
- Orchestration across multiple systems

At its core, our solution transforms unstructured clinical narratives into structured, auditable, and transparent codes.

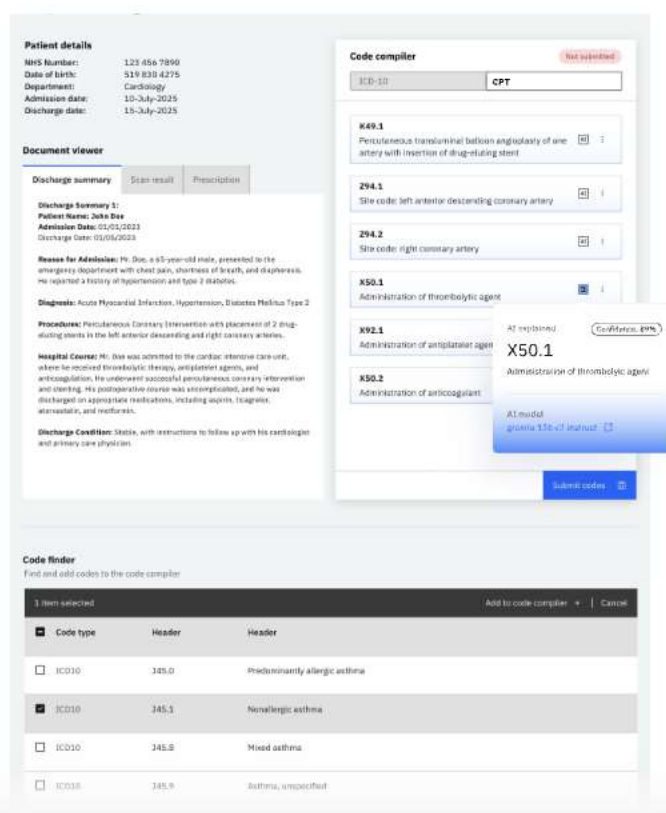


The perfect agentic clinical coding companion

Our solution is an integrated tool providing clinical coders with a bespoke frontend user experience built using IBM Carbon.



The tool centralises Coder's entire workflow, eliminating switching between EPRs, textbooks and code extraction softwares as they do today.



Key features

Case dashboard

View and track all clinical coding cases, view key patient information and be informed of new cases through notifications

Document viewer

View and reference all relevant clinical documents relating to a patients discharge case

Code compiler

View Agent suggested ICD and CPT codes for each case, equipped with explainability and confidence features for transparency and trust

Code finder

Search entire code databases and quickly add any missing codes manually for complete control

Chat with Agents

On top of all the custom frontend components, users also have the ability to chat with expert agents for increased transparency

About IBM

Supporting Government

We help government organisations in the UK and worldwide deliver and transform essential public services – our teams are passionate and proud about helping you to make a real difference to people's lives.

Government Services Supported by IBM



Defence and Intelligence



Public Safety and Policing



Healthcare



Life Sciences



Tax and Revenue



National Infrastructure



Social Care



Education



Works and Pensions

The problems we solve for clients are complex and cannot be satisfied with technology alone. They require a partner that can also offer deep industry expertise and a relationship of trust.

IBM combines the portfolio, people and sense of purpose necessary to meet today's enterprise demands.

Every day, we support and manage complex delivery for government clients where the impact of delivery has wide-reaching impact on citizens and national services.

We bring access to the industry experience, insight and technology capability to deliver and operate secure, scalable, optimised and available services for government.

We support you by bringing:

- Industry expertise – Professionals who understand and are passionate about delivering quality public services and can bring industry insights and apply innovation to your business processes
- Trust and security capabilities – Protecting valuable data and insights and deploying new innovations responsibly
- Innovative technology – Expertise in areas such as AI, blockchain, 5G, Automation, IoT, cybersecurity and quantum, delivered in a Hybrid Cloud environment
- Experienced Services professionals to support strategy, innovation and deliver transformation and change to processes, applications, and cloud infrastructure
- Global alliances – valuable partnerships with the world's leading vendors



About IBM

We have worked together with organisations in the UK for over 100 years, with a rich history of joint innovation and achievements, built on trusted relationships.



Changing the world

IBM was awarded **World Changing Company of the Year 2019** by Fast Company



Tech talent

IBM runs P-TECH schools in 18 countries, helping **>100,000 students build skills for careers of the future**



Royal recognition

29 UK IBMers received **honours from the Queen** for contributions to tech and society



Inventors

IBM UK is home to many Master Inventors, with **>250 patents filed last year alone**



Diversity

IBM won the **Global Diversity Award 2019** and the ENEI's **Gold Standard**



Graduates

IBM is committed to developing future talent – we are Target Jobs' **Graduate Employer of the Year 2019**



Volunteering

IBM dedicates **>20,000 volunteering hours every year** for a better society



Quantum

IBM Q, the world's most advanced quantum computing initiative for commercial use, is being used by CERN



Environment

IBM's focus on sustainability began in 1971 with our first environmental policy



Cloud

Together, IBM and Red Hat are working to deliver the world's only **next-generation hybrid multicloud platform**



Economy

IBM has been **integral to the UK economy for >100 years**, and is one of its largest tech employers



R&D

In the UK alone, IBM invests **£170 million in R&D** each year



