

# RB Weekly AI Brief - Issue 4 - 28.04.2026

Covering the week of 28.04.2026 · Issue 4 of the RB Weekly AI Brief

Recurring themes: Regulation & Policy (2 of last 4 issues) · Models & Research (2 of last 4 issues) · Healthcare & Life Sciences (2 of last 4 issues)

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## AI News Roundup

### Regulatory & HTA Signals

#### EMA and FDA Issue Joint AI Drug Development Principles

Published in January 2026 and included here for its ongoing relevance to regulatory strategy. The European Medicines Agency and US Food and Drug Administration issued joint guiding principles for AI in drug development. Key considerations include risk-based total product lifecycle approaches and adherence to updated AI standards.

***So what?** This creates the first harmonised transatlantic framework for AI evidence submission, requiring pharma companies to align their AI validation strategies across both regulatory jurisdictions.*

RAPS

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### Regulation & Policy

#### EU AI Act High-Risk Rules — August 2026 Deadline Remains Live

The EU AI Act's high-risk AI obligations are currently scheduled to take effect August 2, 2026, affecting any business developing or using AI systems impacting EU individuals regardless of location. A Digital Omnibus proposal is widely expected to extend this deadline to December 2027, but has not been formally adopted and does not yet carry legal force. Fines for non-compliance remain up to €35 million or 7% of global turnover.

***So what?** Healthcare AI companies should continue compliance preparation — while the Digital Omnibus proposal is expected to push the August 2026 deadline to December 2027, this has not been formally adopted and August 2 remains the current legal obligation. Pausing preparation now carries regulatory risk.*

RMOKLegal

#### UK Clinical Trial Regulations Take Force April 28

New UK clinical trial regulations came into force on April 28, 2026, designed to provide patients faster access to new treatments while maintaining safety standards. This represents a post-Brexit regulatory divergence from EU frameworks.

***So what?** UK-specific clinical trial pathways may now offer competitive timing advantages for AI-enabled diagnostics and digital therapeutics seeking market entry.*

MHRA

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### Healthcare & Life Sciences

#### AWS Launches Amazon Bio Discovery AI Platform

Amazon Web Services launched Amazon Bio Discovery, an AI application for early-stage drug discovery allowing scientists to run complex computational workflows without coding. The platform provides access to specialised biological foundation models for drug molecule generation and evaluation.

***So what?** This democratises AI drug discovery by removing computational biology bottlenecks, potentially accelerating smaller biotech timelines and reducing dependency on specialised AI talent.*

US News

## Models & Research

### OpenAI Releases GPT-5.5 for Advanced Autonomous Tasks

OpenAI released GPT-5.5 on April 24, 2026, described as their smartest model yet for autonomous work completion. It excels at coding, research, data analysis, and operating software, capable of planning and executing complex multi-step tasks with minimal supervision.

***So what?** This represents a paradigm shift from AI as a chat tool to autonomous digital workers, potentially transforming how market access teams conduct evidence reviews and regulatory submissions.*

*OpenAI*

### Google's TurboQuant Breakthrough Cuts AI Inference Costs 6x

Google unveiled TurboQuant at ICLR 2026, reducing AI inference memory by 6x with zero accuracy loss through advanced vector quantisation. The algorithm addresses the KV cache bottleneck, potentially making large-scale AI applications dramatically more cost-effective.

***So what?** This infrastructure breakthrough could slash the operational costs of running sophisticated health economics models and population health analytics, making advanced AI accessible to smaller HTA agencies.*

*Crescendo AI*

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## Academic Paper Summaries

*Selected from PubMed · Published within the last 12 months · New selections each week*

*Domain Paper — HEOR / Health Economics / Market Access*

### **Integration of Generative AI with Human Expertise in HEOR: A Hybrid Intelligence Framework.**

*Srivastava T, Irfan H, Babiy V, et al. · Advances in therapy · 2025*

**#ClinicalAI · #HTA · #PatientOutcomes**

This study created a framework for combining generative AI with human expertise in health economics and outcomes research (HEOR). The researchers developed two approaches — one where AI leads with human oversight, and another where humans lead with AI support — to help with tasks like building economic models and analysing patient outcomes. This matters because it provides a roadmap for pharmaceutical companies to effectively integrate AI tools into their health economics work while maintaining human judgment and control.

PMID: 40560525

PubMed →

DOI →

*AI Research Paper 1*

### **Benchmark evaluation of DeepSeek large language models in clinical decision-making.**

*Sandmann S, Hegselmann S, Fujarski M, et al. · Nature medicine · 2025*

**#ClinicalAI · #Regulation**

Researchers tested open-source AI models called DeepSeek against proprietary models like GPT-4 on 125 real patient cases to see how well they could help with clinical decisions. They found that the open-source models performed just as well as or better than the expensive proprietary ones, while being able to run securely within hospitals. This is important because it offers healthcare systems a cost-effective, privacy-compliant way to deploy AI for clinical decision support without sending patient data to external companies.

PMID: 40267970

PubMed →

DOI →

*AI Research Paper 2*

### **The integration of artificial intelligence into clinical medicine: Trends, challenges, and future directions.**

*Aravazhi PS, Gunasekaran P, Benjamin NZY, et al. · Disease-a-month : DM · 2025*

**#ClinicalAI · #NLP · #Diagnostics**

This systematic review examined how artificial intelligence is being integrated into clinical medicine, looking at current applications, barriers to adoption, and future opportunities. The study found that AI tools using machine learning and natural language processing are improving diagnostic accuracy and treatment personalisation, but face challenges around data privacy, bias, and the difficulty of explaining AI decisions to doctors. This research matters because it provides a comprehensive roadmap for healthcare organisations on both the promise and pitfalls of clinical AI implementation.

PMID: 40140300

PubMed →

DOI →

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