

The AIQ Framework – Evidence Driven, Continuous AI Quality Assessment



Real-time AI Validation

Continuous measurement against radiologist findings.



Drift & Bias Reporting

Forecasts performance trends and identifies bias.



Vendor-Neutral Integration

Works with all AI algorithms (DICOM, HL7, orchestration)



Regulatory Compliance

Offering a standardized and measurable approach to AI evaluation, ensuring alignment with approval processes and future regulatory processes.

ABOUT BIALOGICS

Bialogics is redefining precision analytics in diagnostic imaging, enabling healthcare organizations to harness AI-driven performance metrics and scoring for continuous improvements in both clinical outcomes and operational efficiency.

THE CHALLENGE

Widespread adoption of clinical AI in radiology has been slow due to numerous barriers, most notably how to effectively gauge AI performance in practical settings. This, not only impacts the immediate value of AI outputs but the broader impact on radiology efficiency and ROI.

THE SOLUTION

AIQ solves two critical problems plaguing AI in radiology today; 1) the lack of standardized, quantitative process for evaluating the performance/accuracy of AI algorithms individually and collectively and 2) tracking and reporting on the radiology workflow benefits due to the use of AI. AIQ solves these problems. AIQ provides a standardized, real-time monitoring system for evaluating AI models in radiology.

THE RETURN

The AIQ framework will significantly enhance the adoption and performance of AI in radiology by overcoming critical barriers such as trust, reliability and clinical transparency. It strengthens the administration's and radiologists' confidence through real-time validation, fosters more accurate diagnoses, optimizes workflows by quantifying the impact of AI on efficiency and productivity.



AI QUALITY FRAMEWORK

ACCELERATING THE PATH TO AI ADOPTION AND VALIDATION OF AI IN CLINICAL PRACTICE

OVERVIEW

The Biologics AI Quality (AIQ) Framework is the first evidence-driven platform to deliver continuous, KPI-based evaluation of performance in radiology. By aligning AI outputs with radiologist reports and operational data, AIQ establishes a transparent, standardized approach to monitoring diagnostic accuracy, workflow impact and overall clinical value.



AIQ CORE KPI METRICS

AIQ continuously calculates several core performance indicators by comparing AI findings against radiologist diagnostic reports and workflow data:

- Concordance - Alignment between AI results and radiologist diagnoses.
- Positive Concordance Rate (PCR) - Correct identification of true positives.
- Negative Concordance Rate (NCR) - Correct classification of true negatives.
- Positive Predictive Value (PPV) - Likelihood AI positives are correct.
- Negative Predictive Value (NPV) - Likelihood AI negatives are correct.
- Augmented Findings Rate (AFR) - Increase in diagnostic findings due to AI.
- Prevalence - Number of positive findings as % of AI studies.
- AIQ Scoring - Weighted scoring for each algorithm based on the results above.
- AIQ Score Drift Reporting - Longitudinal scoring with benchmarks.

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