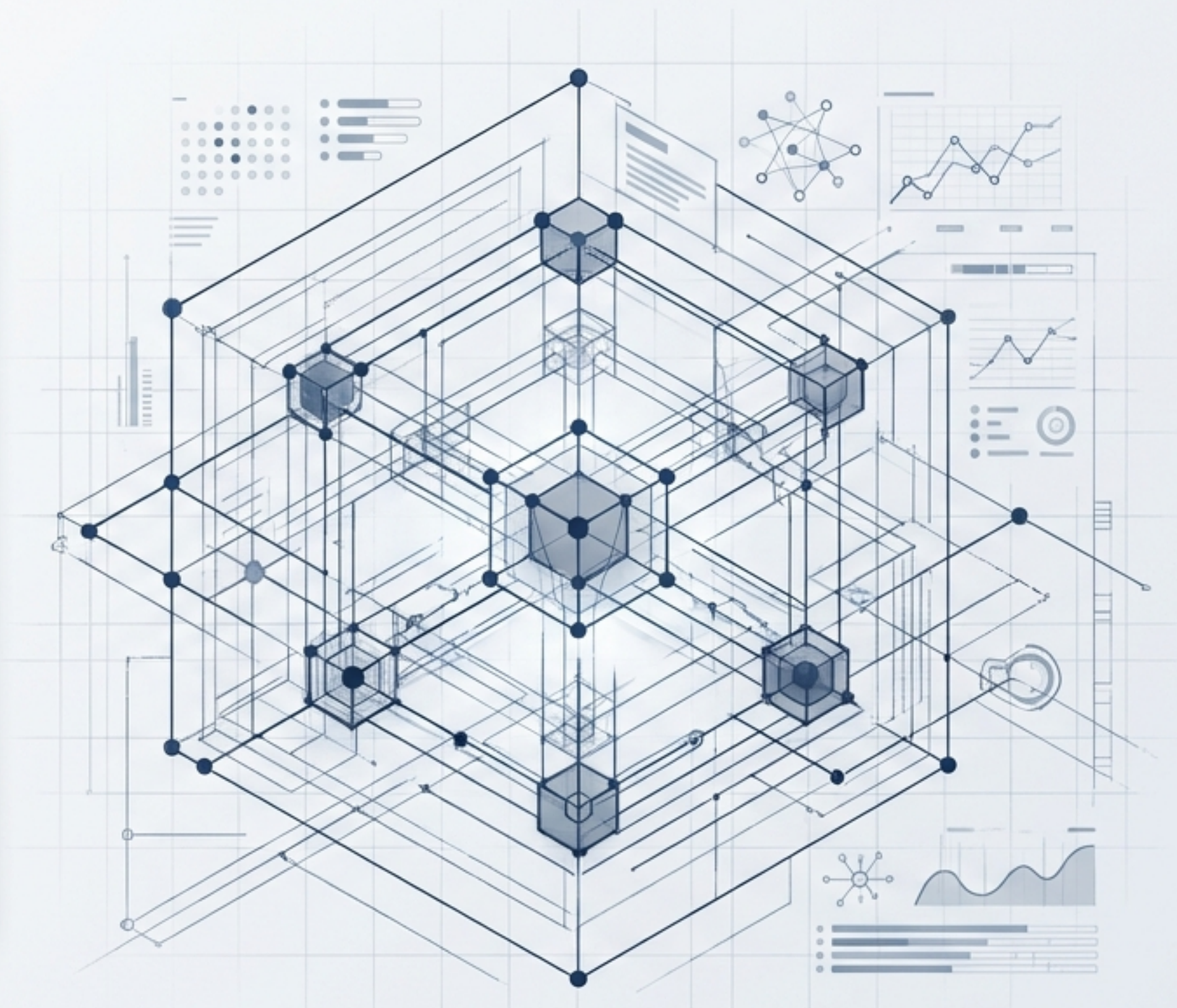


# Building the Living Guideline

The Architectural Framework of the 2026 ACC/AHA Clinical Practice Methodology



● Class 1 ● Class 2a ● Class 2b ● Class 3



Engineered for Trust, Timeliness, and Actionable Care

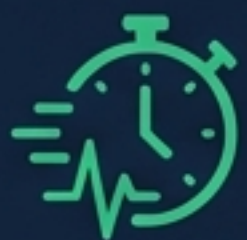
# The Optimization Mandate

Moving from monolithic journal articles to a structured, cloud-based platform.

## Static Endpoint (The Past)



## Living Guidelines (The Future)



### Timely

Rapid updates in response to practice-changing clinical trials.



### Accessible

Content authored and published as modular structured content for seamless digital integration.



### Trustworthy

Rigorous reduction of development time while maintaining the highest evidence standards.

# Guideline Governance Hierarchy: An Interdependent Orbital System

## JOINT COMMITTEE ON CLINICAL PRACTICE GUIDELINES (JCCPG)



**Orbital Body 1: The Writing Committee**

Multidisciplinary content experts, methodologists, and lay/patient stakeholders.

16 core members (7 ACC, 7 AHA, Chair, Chair-Elect), including dedicated Early Career/Fellow-in-Training seats. Max 4-year tenure.

Staff and Liaisons

Staff and Liaisons

Staff and Liaisons



**Orbital Body 2: The Peer Review Committee**

Blinded evaluators representing diverse specialty perspectives.

# Anatomy of a Clinical Question: The PICO(TS) Framework

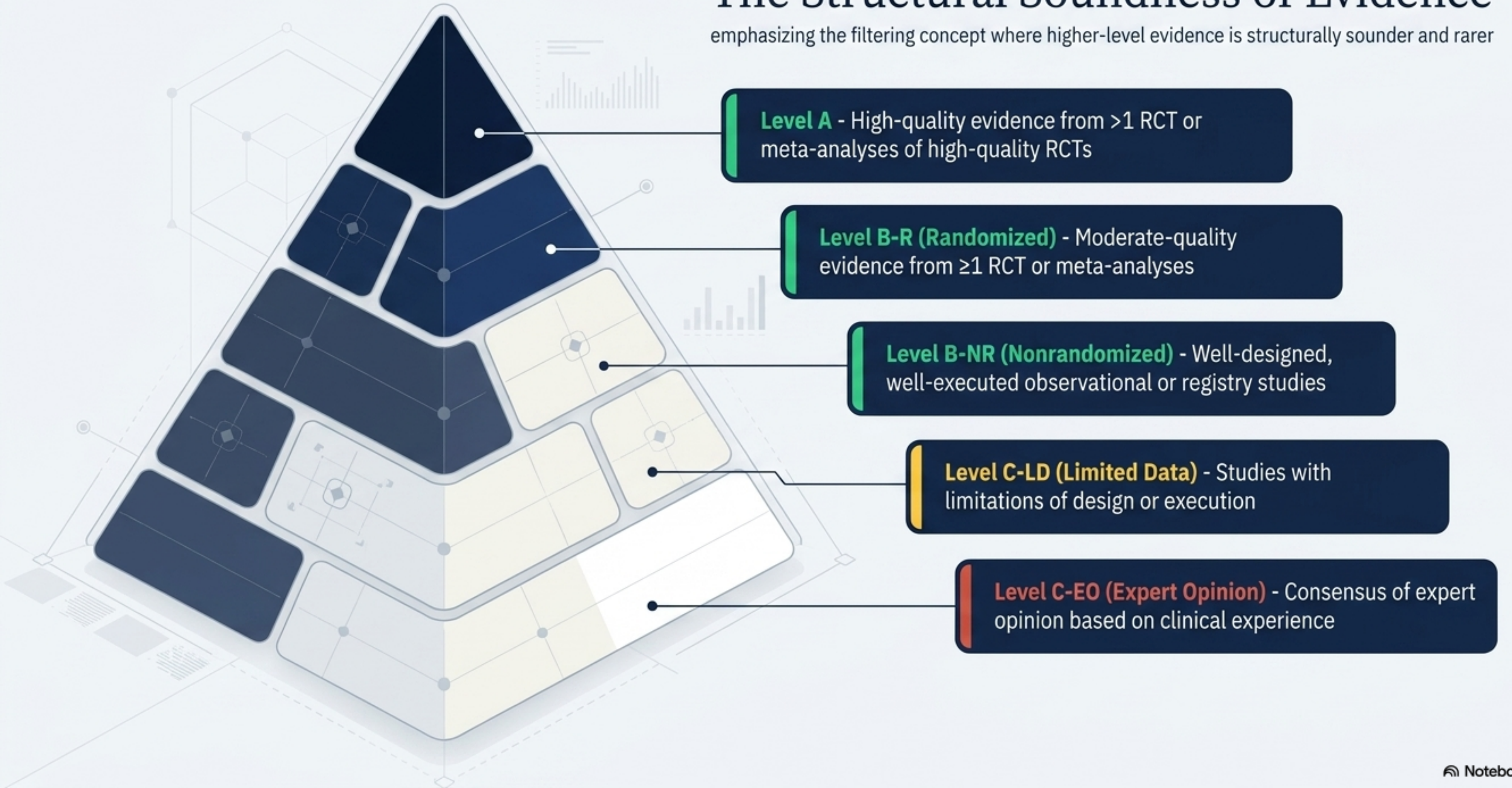
Structuring clinical queries as an interlocking, glowing pipeline for structured recommendations.



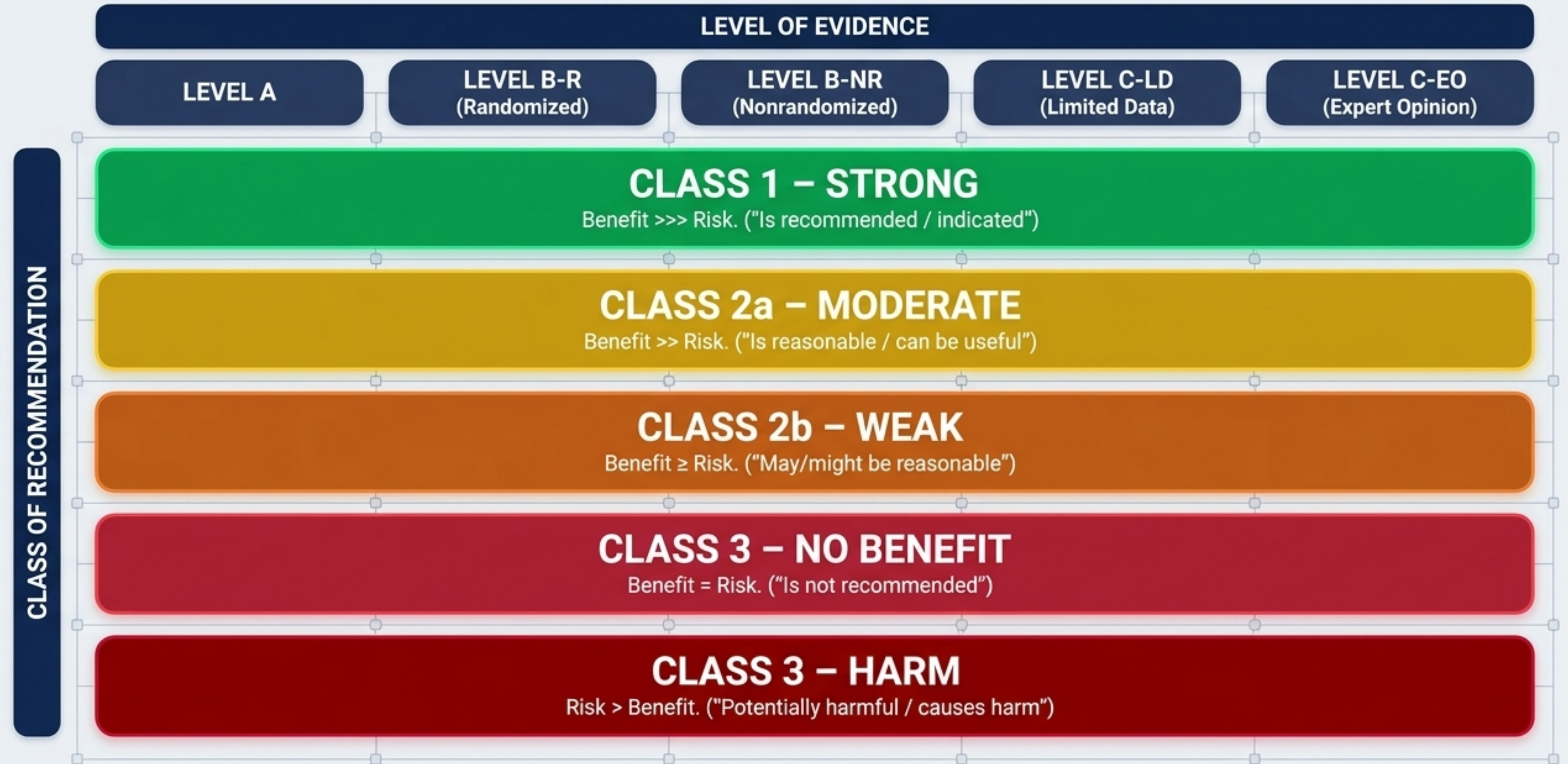
Population	Intervention	Comparator	Outcomes	Timing	Setting
Specific patient characteristics, disease stage, or comorbidities.	Specific treatments, doses, or methods.	The main alternative (placebo, standard of care).	Specific expected results (mortality, quality of life).	Duration required for benefit or harm to occur.	Clinical context or health policy boundaries.

# The Structural Soundness of Evidence

emphasizing the filtering concept where higher-level evidence is structurally sounder and rarer



# Diagnostic Matrix: The Evidence & Recommendation “Cheat Sheet”



# Integrating Economic Realities



## Cost-Effective (High Certainty)



e.g., SGLT2 inhibitors for HFrEF (ICER <\$120k per QALY).



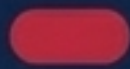
## Cost-Saving (High Certainty)



e.g., Generic high-intensity statins for chronic coronary disease.



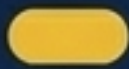
## Not Cost-Effective



e.g., Tafamidis for transthyretin amyloid cardiomyopathy (ICER \$880k per QALY).



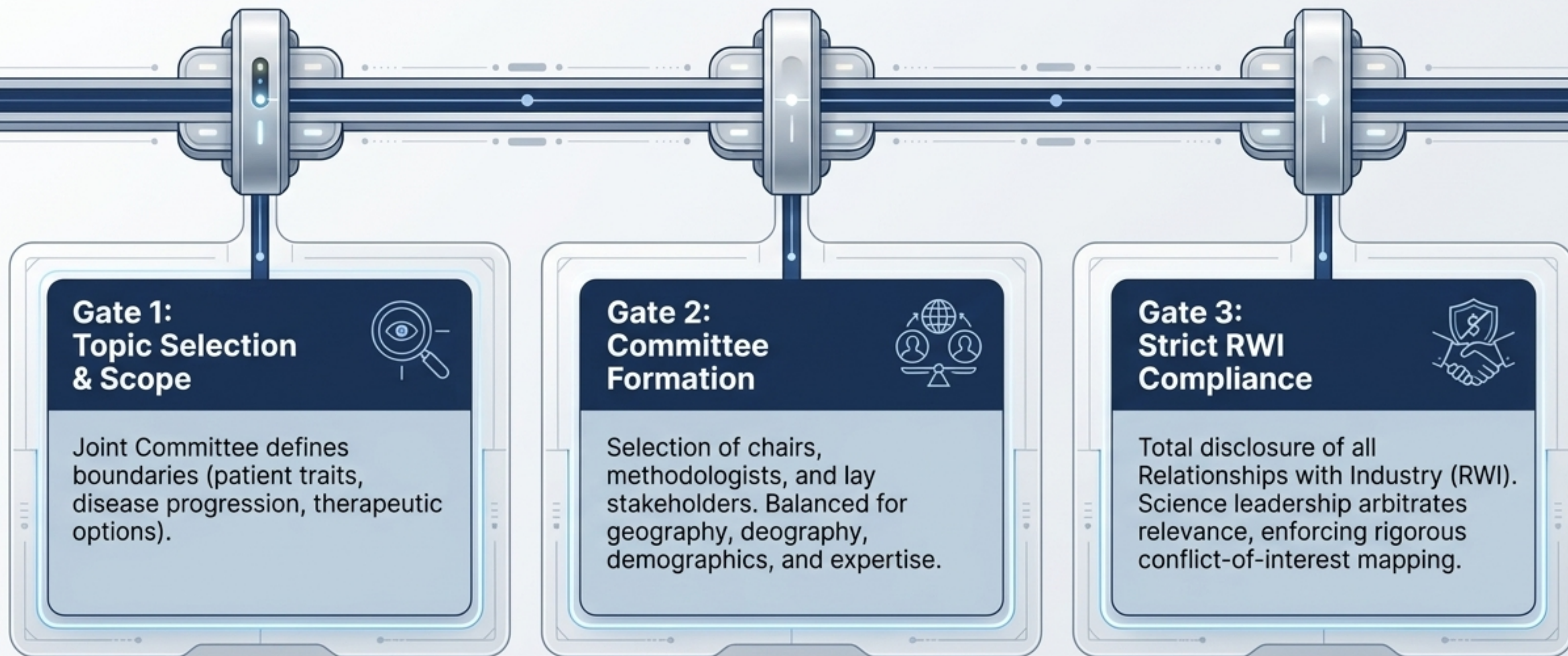
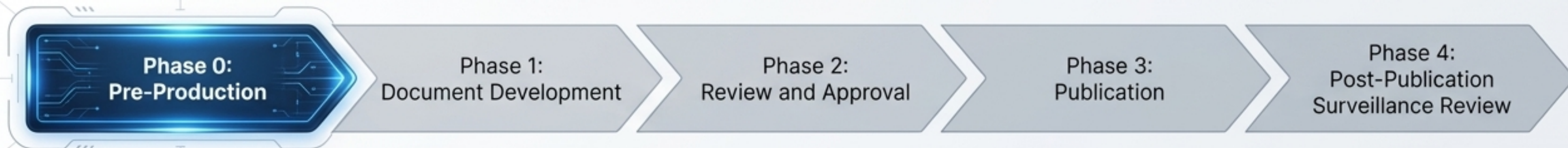
## Indeterminate

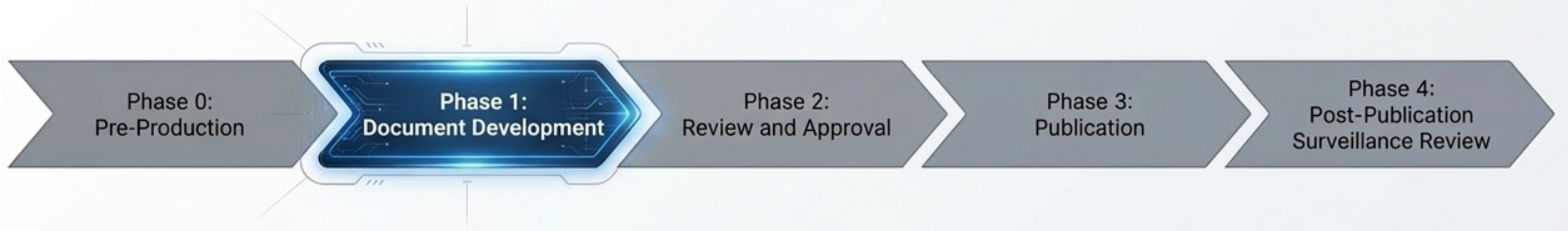


e.g., Semaglutide for secondary prevention without diabetes (insufficient evidence).

# The 5-Phase Guideline Development Engine







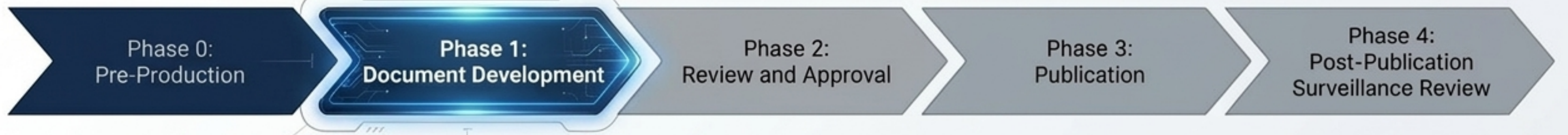
### Evidence Synthesis

Formal systematic reviews and independent evidence table generation by primary authors.



### Modular Recommendation Box: Component Anatomy

- Part 1: A Recommendation Table (COR/LOE)
- Part 2: A brief synopsis (Max 200 words)
- Part 3: Recommendation-specific supportive text (Max 200 words)
- Part 4: Integrated visual algorithms or informative tables



### The Voting Threshold

Every recommendation must achieve >75% anonymous approval from eligible Writing Committee members.

### Strict Recusal

Members with relevant RWI are strictly recused from voting on associated sections.



### The Consequence of Dissent

If consensus is not reached after a maximum of three voting rounds, the recommendation is entirely removed. No minority reports are published.



## The Process

### The 4-Week Review Window:

Broken into two stages (pre and post consensus conference).

### Blinded Peer Review Committee (PRC):

20-30 diverse reviewers whose identities remain unknown to the Writing Committee to eliminate bias.

## The Four Evaluation Pillars

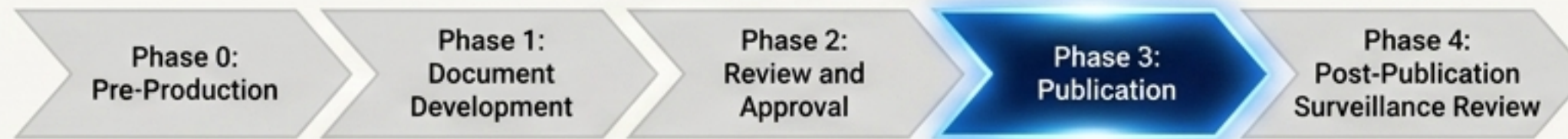
1. Clear, accurate, and balanced?

2. COR/LOE well-supported?

3. Visuals complement text?

4. Executable in professional clinical practice?

# Chevron Chevron Pipeline



## Tier 1: Foundational Approval

ACC Clinical Policy Approval Committee (CPAC) and AHA Science Advisory and Coordinating Committee (SACC)

## Tier 2: Executive Sign-off

ACC Science and Quality Committee & AHA Executive Committee

## Tier 3: Endorsement

Formal endorsement by collaborating societies

Output: Dual-publication in JACC and Circulation

# Act IV: Advanced Clinical Integrations

## Patient-Reported Outcomes (PROs)

**Integrating PROs:** Utilizing validated PROM tools to assess adherence, guide expected treatment benefits, and inform cost-effectiveness (QALYs). LOE ratings heavily depend on whether PRO endpoints were prespecified in trials.

## Shared Decision-Making (SDM)

Explicit recommendations (often COR 1, LOE B-R) requiring clinicians to incorporate patient values and preferences, utilizing accessible decision aids during clinical encounters.







# Pharmacotherapy Regulation Filter

## Nomenclature Rules

Generic/chemical names only (no trade names). Alphabetical listing unless dictated by an evidence-based rationale.

## The Therapeutic Substitution Filter

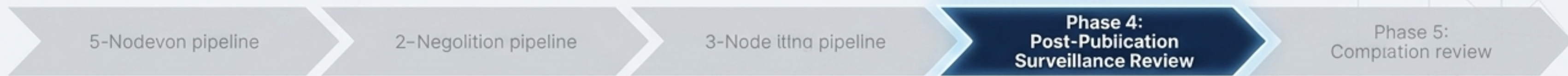
A "class effect" is only recognized if it meets four strict criteria:

-  1. Clearly defined biological pathway.
-  2. Comparable efficacy across multiple agents.
-  3. No evidence of an outlier lacking comparable benefit.
-  4. No demonstrated ineffectiveness within the class.

## Independence from Regulators

Recommendations are driven by published evidence strength, not FDA post-marketing timelines.

# The Modular Clinical Engine



## AI/Human Dual-Filter Funnel

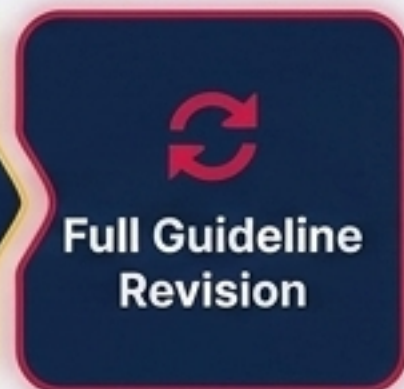
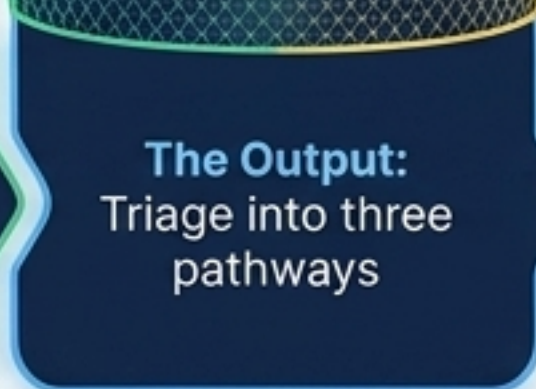
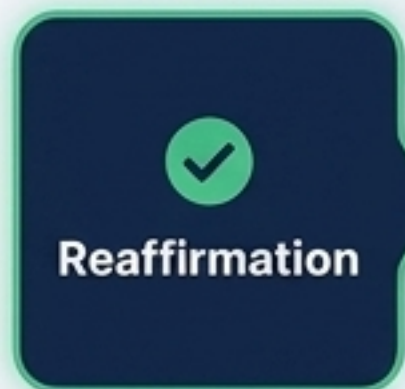


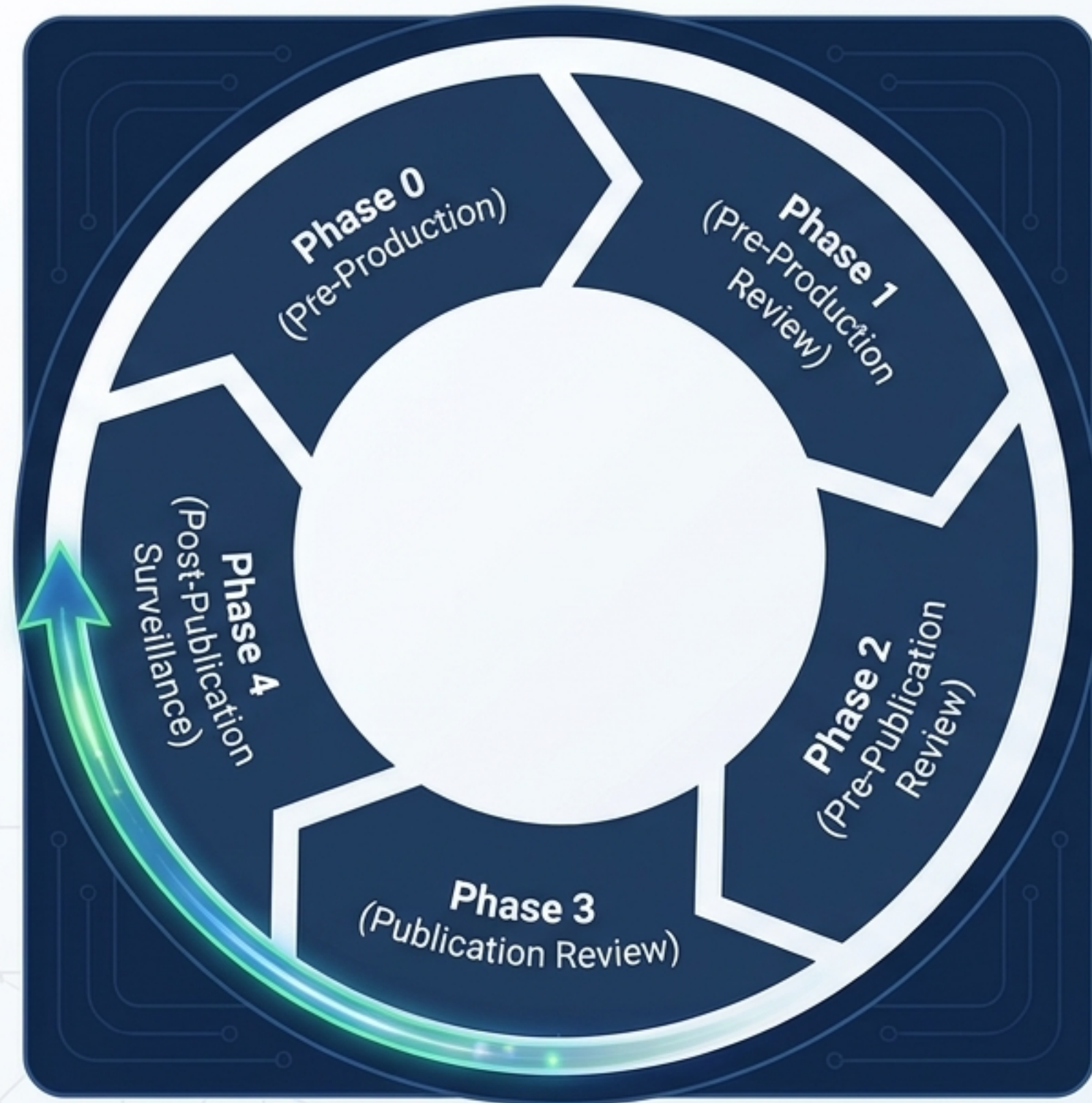
### The Wide Net (LLMs)

ACC/AHA-approved large language models conduct pragmatic, high-volume literature surveillance to identify new evidence since publication.

### The Fine Mesh (Human Experts)

The Surveillance Committee provides expert interpretation, deliberation, and adjudication of flagged studies.





# The Closed-Loop Ecosystem

## Living Engines

ACC/AHA guidelines are no longer static endpoints; they are living engines of cardiovascular health.



## Continuous Ingestion

Post-publication surveillance actively hunts for practice-changing evidence.



## Rapid Output

The modular structure allows rapid, precision updates.



**Final Takeaway:** A relentless, evidence-driven loop ensuring clinicians are always operating with the most accurate, scientifically rigorous guidance available to save lives.