ACADEMIC PUBLICATION SET

VIEN GUT MODEL

Integrated Outpatient Care for Complex Chronic Multimorbidity

Part A — Foundation

Vien Gut Model Academic Publication Set

DOCUMENT A.2
FOUNDATION CONCEPT SET
WHAT — HOW — DATA-TO-OPERATE

Identification, definition and separation of the three architectural layers of the Vien Gut Model
Reading foundation for the entire publication set

Vien Gut Model — Academic Publication Set
First systematic compilation — March 2026
Ho Chi Minh City, Vietnam

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Clinical HOW deployment: Risk stratification, opportunity window, longitudinal monitoring, risk control, polypharmacy management, referral safety valve activation — Vien Gut Model.

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EXECUTIVE SUMMARY FOR EXPERT REVIEWERS

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DOCUMENT A.2 — FOUNDATION CONCEPT SET: WHAT — HOW — DATA-TO-OPERATE

Identification, definition and separation of the three architectural layers of the Vien Gut Model

Nguyen Dinh Quang — Vien Gut Model

Tháng 3/2026 — Ho Chi Minh City, Vietnam

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1. Document purpose

The Vien Gut Model is built on a three-layer architecture: WHAT — HOW — DATA-to-operate. These three layers appear throughout from A.0 to C.4 and constitute the shared language of the entire publication set. Document A.2 has a single purpose: to precisely identify and define these three layers — where the boundaries between them lie, and why they cannot compensate for each other — before the reader enters Part B (operational model) and Part C (verification targets).

> *A.1 identifies the structural break point in the EBM chain → A.2 defines the three layers filling that gap → A.3 confirms the gap with international evidence → A.4 deploys detailed operational terminology.*

2. Definition of the three architectural layers

2.1. WHAT — Treatment knowledge layer

Aspect	Content
Identification	WHAT (What to do) — Evidence-based treatment knowledge layer
Definition	The set of treatment targets, clinical principles, biochemical thresholds, medication recommendations and disease management strategies — established by international guidelines based on evidence from RCTs, systematic reviews and expert consensus.
Scope	Single-disease guidelines (EULAR, ACR, KDIGO, ESC, EASL, ADA); international multimorbidity consensus (NICE NG56, JA-CHRODIS, WHO ICOPE); treatment targets (T2T, remission criteria); disease staging classification; medication principles, contraindications, interactions.
Exclusions	WHAT does NOT include: operational organization processes; how to coordinate multiple guidelines on the same patient; longitudinal decision-activating data; feedback and continuous adjustment mechanisms.
Operationalization	Part B: application of ACR 2020, KDIGO 2024, ESC 2021, EASL 2018 guidelines. C.1: 18 guidelines consistent on crystal-free. C.2–C.4: guidelines for kidney preservation, cardiac decompensation prevention, cirrhosis recompensation.

2.2. HOW — Clinical operations layer

Aspect	Content
Identification	HOW (How to operate) — Structured clinical operations layer
Definition	Clinical operations organization system: processes, role assignment, action thresholds, multidisciplinary coordination mechanisms, guideline conflict resolution and safety protection — enabling WHAT to be applied to the right person, at the right time, at the right safety level.
Scope	Clinical Conductor longitudinal coordination; multidisciplinary team; T1–T4 stratification; 4-phase treatment plan; integrated polypharmacy management; disease–disease / drug–disease conflict resolution; bidirectional referral safety valve; longitudinal monitoring rhythm; opportunity window; patient education.
Exclusions	HOW is NOT a new treatment protocol, not a rigid protocol, not IT software, not an administrative management initiative — this is a clinical layer, operated by physicians

	and healthcare teams.
Operationalization	B.1: first consultation activates HOW. B.2: 4-phase plan. B.3: necessary and sufficient conditions to keep the opportunity window. B.4: patient role framework. B.5: enabling conditions, guideline conflict resolution.

2.3. DATA-to-operate — Decision-activating data layer

Aspect	Content
Identification	DATA-to-operate — Operational data layer activating clinical decisions
Definition	A dataset sufficient for action — not for storage. A longitudinal time-series data system, designed to identify target organ damage, pathological spirals, trends, safety margins, opportunity windows and break points — then activate corresponding decisions.
Scope	Time-series data for each disease axis; action thresholds; trend dashboard for Clinical Conductor; decision log and audit trail; monitoring SLA; patient adherence data; longitudinal imaging data (ultrasound, elastography, DECT).
Exclusions	DATA-to-operate is NOT “big data”, not conventional EMR (EMR stores, DATA-to-operate activates), not collecting as much data as possible — but collecting the right data needed for decision-making. A single snapshot is NOT DATA-to-operate.
Operationalization	B.1: minimum paraclinical core. B.2: phase-transition activating data. B.3: window time-series. B.4: adherence. B.5: safety valve thresholds. C.1: ultrasound caliper mm² crystal-free. C.2: eGFR time-series. C.3: BNP/EF. C.4: Child–Pugh/FibroScan.

3. Relationship between the three layers — no substitution, no compensation

The three layers are not three hierarchical levels nor three choices. They are three structural components of the same architecture — missing any layer, the remaining two cannot produce sustainable clinical outcomes in complex chronic multimorbidity patients.

Combination	Status	Clinical consequence
Strong WHAT + Weak HOW + Weak DATA	Know what to treat but cannot organize, cannot see trends	Fragmented care, lost opportunity windows, increased adverse events
Strong WHAT + Strong HOW + Weak DATA	Can organize but decisions based on single snapshots	Trend-blind, late reaction, safety valve activated too late
Complete WHAT + HOW + DATA	Know, can organize, see trends, continuously adjust	Crystal-free, delayed dialysis, reduced cardiac decompensation, cirrhosis recompensation

4. The three layers in the context of complex chronic multimorbidity

In mild-to-moderate single disease, WHAT is usually sufficient: one guideline, one physician, one protocol. HOW and DATA-to-operate exist implicitly. When a patient simultaneously carries 4–7 severe chronic diseases on a single debilitated body, the number of disease–disease, drug–disease and target–target conflict combinations increases exponentially — far exceeding implicit processing capacity. Complex chronic multimorbidity requires all three layers to be explicitly designed.

> *Implicit HOW becomes insufficient. Memory-based DATA becomes unsafe. This is a structural reason — not because single disease is easier, but because the complexity exceeds the threshold that implicit operations can safely handle.*

5. Position in the document system

A.2 sits between A.1 (theoretical EBM framework) and A.3 (global gap evidence), serving as a bridge: A.1 identifies the break point → A.2 defines the three layers → A.3 confirms with evidence → A.4–A.5 deploy terminology. Simultaneously, A.2 is the reading foundation for all of Part B (operations) and Part C (verification).

6. Conclusion

WHAT maintains the role of treatment knowledge standard — fully inherited from international guidelines. HOW transforms knowledge into structured, role-assigned and controllable action. DATA-to-operate transforms discrete data into signals activating action at the right time. The separation and simultaneous integration of these three layers is a mandatory architectural condition for complex chronic multimorbidity care — the result of systematization from 18 years of integrated clinical practice at Vien Gut Polyclinic.

REFERENCES (abbreviated)

[1] FitzGerald JD, et al. 2020 ACR Guideline for the Management of Gout. Arthritis Care Res. 2020;72(6):744–760.
[2] Richette P, et al. 2016 updated EULAR recommendations for gout. Ann Rheum Dis. 2017;76(1):29–42.
[3] KDIGO. 2024 Clinical Practice Guideline for CKD. Kidney Int. 2024; Supplement.
[4] McDonagh TA, et al. 2021 ESC Guidelines for heart failure. Eur Heart J. 2021;42(36):3599–3726.
[5] EASL. Clinical Practice Guidelines for decompensated cirrhosis. J Hepatol. 2018;69(2):406–460.
[6] NICE. Multimorbidity: clinical assessment and management (NG56). 2016 (updated 2023).
[8] WHO. Framework on Integrated, People-Centred Health Services. 2016.
[9] Sackett DL, et al. Evidence based medicine: what it is and what it isn't. BMJ. 1996;312(7023):71–72.
[11] ADA. Standards of Care in Diabetes — 2024. Diabetes Care. 2024;47(Suppl 1):S1–S321.

Note: Complete list (11 references): see full A.2 document.

Vien Gut is ready to share the entire model with the international medical community as a public good, serving the goal of improving complex chronic multimorbidity care in 129 low- and middle-income countries.