

ACADEMIC PUBLICATION SET

VIEN GUT MODEL

Integrated Outpatient Care for Complex Chronic Multimorbidity

Part A — Foundation

Vien Gut Model Academic Publication Set

DOCUMENT A.3 THE GLOBAL HOW GAP

Why complex chronic multimorbidity is not served
by existing single-disease guidelines

Vien Gut Model — Academic Publication Set

First systematic compilation — March 2026

Ho Chi Minh City, Vietnam

AUTHORS & ACADEMIC LEAD

Nguyễn Đình Quang

Independent medical researcher | Founder of Vien Gut | Overall design of HOW — DATA-to-operate / operational layer

HOW AND DATA-TO-OPERATE DESIGN TEAM — VIEN GUT

Nguyễn Đình Quang Huy Participating in HOW — DATA-to-operate design | System operations management, transfer organization — Vien Gut Model

Huỳnh Phước Đại, Nguyễn Sơn Patient-facing language editing | Communications data management, deployment and transfer support — Vien Gut Model

ACADEMIC SUPPORT & WHAT (GUIDELINE) BENCHMARKING — INTERNATIONAL EXPERT GROUP

Thomas Bardin, Pascal Richette Co-authors of EULAR Recommendations — together with experts in cardiology, nephrology, hepatology, diabetology, diagnostic imaging, and biostatistics at Université Paris Cité, France and Sorbonne Université. Transfer of WHAT from gout treatment guidelines and comorbidities, international WHAT benchmarking; HOW design support — Vien Gut Model.

DATA GOVERNANCE TEAM — VIEN GUT

Trương Ánh Dương, Huỳnh Hồng Đức Data governance, transfer support — Vien Gut Model

Lê Việt Anh Data governance — Vien Gut

TREATING PHYSICIANS + MULTIDISCIPLINARY TEAM AT VIEN GUT POLYCLINIC

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

RESEARCH SITE

Franco-Vietnamese Center for Gout and Chronic Disease Research, Vien Gut Polyclinic, 13A Hong Ha Street, Tan Son Hoa Ward, Ho Chi Minh City, Vietnam.

EXECUTIVE SUMMARY FOR EXPERT REVIEWERS

EXECUTIVE SUMMARY FOR EXPERT REVIEWERS

DOCUMENT A.3 — THE GLOBAL HOW GAP

Why complex chronic multimorbidity is not served by existing single-disease guidelines

Nguyen Dinh Quang — Vien Gut Model
Tháng 3/2026 — Ho Chi Minh City, Vietnam

1. Context

A.1 identified the structural break point in the EBM chain. A.2 defined the three WHAT–HOW–DATA-to-operate layers. Document A.3 adds international evidence confirming: the HOW gap exists at global scale, not only as a Vien Gut or gout-specific problem.

2. Scale of the problem — complex chronic multimorbidity is a global reality

Source	Key finding
Barnett 2012	1.7 million patients in Scotland: 42% of adults have ≥ 2 chronic diseases; $>80\%$ in the over-80 age group. Low-income groups: multimorbidity appears 10–15 years earlier.
WHO 2023	$>60\%$ of global disease burden comes from non-communicable chronic diseases, mostly multimorbidity.
LHQ 2011	Political declaration: non-communicable diseases are the major challenge of the 21st century, calling on 194 countries to develop national plans.
Vietnam 2015	Decision 376/QD-TTg: non-communicable diseases account for 73% of deaths and 66% of national disease burden.

Structural paradox: disease has shifted to multimorbidity, but the healthcare system — from physician training, specialty organization, to guideline development — still operates on the single-disease model.

3. Comparison of two international literature sources

3.1. Single-disease guidelines: solid WHAT, HOW for multimorbidity does not exist

EULAR/ACR (gout), KDIGO (CKD), ESC (heart failure), EASL (cirrhosis) all provide excellent WHAT. But no guideline describes HOW when these four guidelines are simultaneously applied to one patient — who coordinates, in what order, with what conflict resolution mechanism, using what longitudinal data.

3.2. International consensus on multimorbidity: gap acknowledged but not yet filled

Source	Contribution and limitation
NICE NG56 (2016)	First guideline in the world on multimorbidity. Acknowledges single-disease guidelines are inappropriate; recommends reducing treatment burden, having a coordinator — but does not provide specific HOW.
JA-CHRODIS (2016)	Pan-European consensus: fragmented care causes harm. Requires designated family physician and nurse — but does not describe integrated operational processes.
WHO ICOPE (2016)	People-centred integrated care framework. Correct principles — but lacks HOW for complex chronic multimorbidity in LMIC outpatient settings.
Hughes 2013	Simultaneously applying multiple single-disease guidelines creates overwhelming treatment burden even at moderate levels.
Muth 2019	>10 years of acknowledging single-disease guidelines are inappropriate, yet integrated clinical decision support remains severely lacking.

4. Clinical consequences of the HOW gap

Consequence	Evidence	Source
Increased inappropriate medications + increased mortality	Cohort of 4.7 million Danish citizens: fragmentation independently associated with increased PIM and mortality	Jiang/Prior 2023
Increased emergency visits + increased costs	Systematic review: fragmentation increases emergency visits, duplicate testing, overall costs	Jiang 2023
Patients left to self-coordinate	Conflicting information, no one bearing overall responsibility, exhaustion from self-coordination	Schiøtz 2017; Liddy 2014
Physicians stressed between guidelines and reality	Family physicians report stress between applying single-disease guidelines and risk of harm	Johansen 2020

5. Four structural characteristics of the HOW gap

Characteristic	Description and Vien Gut Model response
1. No coordinator	No guideline identifies who bears overall responsibility. VG response: Clinical Conductor (B.1, B.2).
2. No conflict resolution mechanism	No guideline describes how to resolve drug–disease conflicts. VG response: conflict resolution matrix, vital organ priority principle (B.5).
3. No structured longitudinal data	Guidelines based on cross-sections. Multimorbidity needs time-series. VG response: DATA-to-operate (A.2, B.3).
4. No safety valve with predefined pathway	Referral typically occurs late, after decompensation. VG response: bidirectional referral safety valve on standby (B.1, B.2).

6. Conclusion

The HOW gap in complex chronic multimorbidity care has been acknowledged by NICE, WHO, JA-CHRODIS and numerous international studies. Measurable consequences: increased inappropriate medications, increased mortality, increased emergency visits, increased costs, lost opportunity windows. What no one had achieved — until the Vien Gut Model systematized 18 years of practice — was building a specific, structured HOW + DATA-to-operate architecture, already operational and verified on complex chronic multimorbidity patients in outpatient care.

The Vien Gut Model does not deny guidelines — WHAT is still fully adhered to. What the model adds is two layers that guidelines do not provide: HOW and DATA-to-operate.

REFERENCES (abbreviated)

- [1] Barnett K, et al. Epidemiology of multimorbidity. *Lancet*. 2012;380(9836):37–43.
- [2] WHO. Global Action Plan for NCD 2013–2030. Geneva: WHO; 2023.
- [4] NICE. Multimorbidity (NG56). 2016 (updated 2023).
- [5] Onder G, et al.; JA-CHRODIS. *Health Policy*. 2015;119(12):1513–1520.
- [6] WHO. Framework on Integrated, People-Centred Health Services. 2016.
- [7] Hughes LD, et al. Guidelines for people not for diseases. *Age Ageing*. 2013;42(1):62–69.
- [8] Muth C, et al. Evidence supporting best clinical management of multimorbidity. *J Intern Med*. 2019;285(3):272–288.
- [9] Prior A, et al. Healthcare fragmentation, multimorbidity, PIM, and mortality. *BMC Med*. 2023;21(1):305.
- [14] Tinetti ME, et al. Potential pitfalls of disease-specific guidelines. *N Engl J Med*. 2004;351(27):2870–2874.

Note: Complete list (20 references): see full A.3 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.

Complete document system: A.0–A.5 | B.1–B.5 | C.1–C.4 | Part D