ACADEMIC PUBLICATION SET

VIEN GUT MODEL

Integrated Outpatient Care for Complex Chronic Multimorbidity

Part B — Operational Model

Vien Gut Model — Academic Publication Set

DOCUMENT B.4
THE PATIENT'S ROLE

An Operational Framework from the Patient and Family Perspective — From Passive Recipient to Measurable, Trainable and Longitudinally Governed Participation Capacity

Vien Gut Model — Academic Publication Set
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1. Problem Statement

In most current chronic-disease treatment models — including the most advanced ones — the patient is still treated by default as a passive recipient: receiving prescriptions, receiving dietary guidance, being reminded to attend follow-up. Even in the 'self-management' and 'patient empowerment' movements that emerged in the 1990s, the patient's role is defined primarily along the educational dimension — transmitting knowledge, raising awareness — rather than along the operational dimension: measuring capacity, classifying readiness levels, and governing collaboration as a longitudinal monitoring indicator [13],[14].

This gap becomes more dangerous in the context of complex chronic multimorbidity. Here, the patient must not only adhere to a single regimen but must simultaneously manage multiple disease axes, multiple medications with complex interactions, multiple overlapping monitoring rhythms, and multiple urgent decision points that a fragmented system will not detect in time. In this context, if the patient lacks sufficient 'participation capacity', even the strongest HOW will not produce results [1],[2].

Document B.4 builds an operational framework for the patient's role in the Vien Gut Model: not clinical advice, not a list of requirements — but an architecture that is measurable, trainable, and must be continuously governed under the same longitudinal monitoring logic that the model applies to pathology [8].

2. Conceptual Framework: Two Capacity Layers and the Operational Intersection

The Vien Gut Model clearly distinguishes two capacity layers in integrated chronic multimorbidity care — two layers that are neither interchangeable nor compensatory:

	Necessary Conditions — Treatment Capacity	Sufficient Conditions — Participation Capacity
Source	Belongs to the model and care system	Belongs to the patient and family
Content	Principled framework, operating framework, organisational framework, data framework — Clinical Conductor, MDT, safety valve, DATA-to-operate, action thresholds, audit trail.	Genuine desire, understanding enough to act correctly, resources that can be arranged, self-monitoring capacity, support system, sustainable collaboration, trainable capacity.
Metaphor	The track — built once, maintained continuously	The train — must have the capacity to run on the right track
Consequence when absent	Right train but no track — loses direction	Right track but train cannot run — stands still

OPERATIONAL INTERSECTION — When the Two Capacity Layers Align

When necessary conditions (the model's treatment capacity) and sufficient conditions (the patient's participation capacity) are simultaneously satisfied, integrated care reaches 'operational readiness' — meaning HOW can be deployed as designed, WHAT can be pursued to target, and DATA-to-operate can reflect the patient's true trend, not the trend of non-adherence. When either layer is missing, the entire architecture is weakened — not partially but systemically. This is why 'participation capacity' is not an add-on but must be designed in from the start as an operational component of the model [8].

2.1 Benchmarking Across Three Contexts

To clarify the academic position of the 'patient role' operational framework in the Vien Gut Model, this document benchmarks it against three contexts: single-disease guidelines, international consensus on integrated care, and the fragmented care model.

Benchmarking Criterion	Single-Disease Guidelines / International Consensus	Vien Gut Model — B.4
How is the patient's role defined?	Patient as intervention recipient. NICE NG56 mentions 'patient preferences' but has no framework for measuring participation capacity [1],[2].	An active operational component with eight measurable sufficient conditions, classifiable and governable longitudinally — not a static input condition [8].
Are sufficient conditions built or merely expected?	Guidelines expect adherence but provide no building mechanism. International consensus proposes 'patient education' without standardised execution-capacity checks [1],[3].	Structured training with 4 core modules + execution-capacity check + 7-day checklist + reassessment at 2–4 weeks — a repeatable, verifiable process [8].
How does the fragmented model handle the patient's role?	Each specialty provides its own guidance; no one coordinates. Patients self-synthesise contradictory information; participation capacity is never assessed holistically [6],[7].	Clinical Conductor is the sole longitudinal-axis holder assessing overall participation capacity. Collaboration is a periodically measured longitudinal indicator — not a one-time promise [8].
Are sufficient conditions built or merely expected?	Guidelines expect adherence but provide no building mechanism. International consensus proposes 'patient education' without standardised execution-capacity checks [1],[3].	Structured training with 4 core modules + execution-capacity check + 7-day checklist + reassessment at 2–4 weeks — a repeatable, verifiable process [8].

Position of B.4 in the B.3 → B.4 sequence

Document B.3 defines necessary conditions (the system's HOW + DATA-to-operate) and sufficient conditions at the principled level — establishing that without sufficient conditions from the patient's side, the window of opportunity remains a theoretical concept. B.3 states the principle; B.4 deploys the details.

Document B.4 deploys the entire sufficient-condition layer in detail: eight measurable conditions, three readiness classification levels, a capacity-building process, and a longitudinal collaboration-governance framework. B.4 does not repeat B.3 — it operationalises the patient's participation capacity that B.3 identified as indispensable.

3. Eight Sufficient Conditions — Systematising the Patient's Participation Capacity

Vien Gut researched and developed these eight sufficient conditions from 18 years of structured clinical observation — not from theoretical design nor borrowed from single-disease chronic-disease management models. This is a systematisation of patient participation capacity in the context of complex chronic multimorbidity in integrated outpatient care — a context for which no existing single-disease guideline or international consensus provides an equivalent framework [8].

These eight conditions are not a list of externally imposed requirements — they are a set of measurable, buildable capacities that must be continuously maintained throughout treatment. When systematically assessed, they allow the model to predict who is ready, who needs support, and who should be temporarily deferred — before treatment begins.

	Sufficient Condition	Core Substance
1	Genuine desire and long-term goal commitment	Not a momentary intention — a decision to accept the phased journey, refuse 'phase-burning', prioritise vital-organ safety over speed.

2	Understanding enough to act correctly	Minimum capacity to understand 5 operating principles + capacity to execute simple SOPs in real life.
3	Arrangeable resources	Time – finances – transportation sufficient for uninterrupted continuity.
4	Home self-monitoring capacity and timely communication	Monitor critical symptoms, basic vital signs, alert early when threshold is breached — no 'waiting a few more days.'
5	Support system when unable to manage alone	A substantive companion, not just a ride to the clinic — mandatory for severely multimorbid, elderly, polypharmacy (≥7 medications) patients.
6	Collaboration and process trust (Therapeutic Alliance)	No shopping around on intuition, full disclosure of all medications/herbals, accepting referral as protection — not failure.
7	Participation in model-based training and education	The 'gate-lock' condition — transforms desire into execution capacity through 4 mandatory core modules.
8	Collaboration checked, assessed and continuously reinforced	Collaboration is a dynamic variable, not a one-time static condition — must be governed as a longitudinal monitoring indicator throughout the treatment journey.

Sufficient Condition 1: Genuine Desire and Long-Term Goal Commitment

Sufficient Condition 1 ◎ Genuine Desire and Long-Term Goal Commitment

OPERATIONAL DEFINITION

The patient proactively wants to participate and clearly understands this is not a short-term treatment package but a phased journey with long-term targets. This commitment includes: accepting that 'symptom relief' is only the initial phase and not the final goal, refusing to 'burn phases', and prioritising vital-organ safety over immediate comfort.

✔ **MET INDICATORS:**

- Proactively asks about phase targets
- Understands that 'still in pain' during the initial phase does not mean treatment is ineffective
- Does not pressure for plan changes before adequate assessment time
- Proactively discusses long-term goals with the Clinical Conductor

✘ **NOT YET MET INDICATORS:**

- Wants 'immediate pain relief' without regard for organ safety
- Only participates when symptoms are severe; abandons follow-up when pain subsides
- Seeks 'a single prescription' without accepting long-term management
- Frequently compares with others and demands regimen changes based on hearsay

Sufficient Condition 2 ◎ Understanding Enough to Act Correctly

OPERATIONAL DEFINITION

Minimum capacity to understand five mandatory operating principles of integrated outpatient care, sufficient to make correct behavioural decisions in real life — not theoretical medical understanding, but enough to self-operate correctly according to model protocols.

✔ **MET INDICATORS:**

- Can explain why longitudinal trend monitoring is needed, not just single test snapshots
- Distinguishes red flags requiring immediate reporting from normal fluctuations
- Understands why self-adjusting medications is prohibited even when symptoms appear to improve
- Completes the 7-day checklist during the initial phase

✘ **NOT YET MET INDICATORS:**

- Misunderstands or follows hearsay over model protocols
- 'Understands but doesn't do' — knows the principles but frequently self-adjusts

— Overrides the plan based on emotions or advice from outside the model
— Cannot recognise warning signs of the priority disease axis

Sufficient Condition 3 ◎ Arrangeable Resources

OPERATIONAL DEFINITION

The patient has actual capacity — not just intention — to maintain treatment continuity across three dimensions: time (follow-up visits and tests at the correct stratification rhythm), finances (a sustainable payment plan for at least 3–6 months), and logistics (transportation or mobility support).

✔ **MET INDICATORS:**

— Confirms a follow-up schedule matching Phase 1 stratification rhythm (usually denser than the stable phase)
— Has a clear financial plan for at least the first 3–6 months of treatment
— Has transportation means or mobility support for difficult cases
— No geographical or occupational barriers disrupting the follow-up rhythm

✘ **NOT YET MET INDICATORS:**

— Drops out when symptoms improve and returns only when condition worsens
— Treatment is 'intermittent' due to finances — without informing the system for adjustment
— No one available for transportation support while unable to travel independently
— Tests done at wrong locations or wrong times due to scheduling inability

Sufficient Condition 4 ◎ Home Self-Monitoring Capacity and Timely Communication

OPERATIONAL DEFINITION

Capacity to monitor minimum critical signs per the priority disease axis at home — and more importantly, the ability to recognise when early reporting is needed to trigger intervention. The interval between follow-up visits is the 'blind zone' — this is where self-monitoring capacity becomes the patient's safety valve.

✔ **MET INDICATORS:**

— Can identify critical symptoms per disease axis: dyspnoea, oedema, oliguria, consciousness changes, rapidly increasing pain, fever
— Knows how to monitor basic vital signs when required: blood pressure, pulse, weight, fluid intake/output
— Reports within 24 hours when threshold signs appear — no 'waiting a few more days'
— Has a clear communication channel with the model and knows how to activate the emergency channel

✘ **NOT YET MET INDICATORS:**

— Hesitates to report or feels they are 'bothering' the team — delays until outpatient threshold is exceeded
— Cannot distinguish severity levels; treats all minor changes as normal
— Lacks minimum equipment (thermometer, blood pressure monitor) when the disease axis requires vital-sign monitoring
— Contacts through the wrong channel or too late, losing intervention time

Sufficient Condition 5 ◎ Support System When Unable to Manage Alone

OPERATIONAL DEFINITION

For severely multimorbid, elderly, cognitively impaired, visually impaired patients, or those managing 7+ medications — this is not optional but mandatory: a substantive companion is required. The companion is not just a ride to the clinic — they are an operational link in the sufficient-condition chain.

✔ **MET INDICATORS:**

— The companion understands the treatment schedule and phase targets — not just medication names
— The companion can manage medications: avoid dose/timing errors, detect missing medications
— The companion proactively monitors warning signs independently of the patient
— The companion can make emergency contact with the model and bring the patient for timely visits

✘ **NOT YET MET INDICATORS:**

— Patient 'manages alone' with an overly complex plan — high risk of medication errors

— Companion only provides transportation without understanding the plan — breaks continuity between visits
— Companion changes frequently (different person each time) — no one tracks the full journey
— No one available at home during nights/weekends when the patient is at risk of adverse events

Support-Level Classification by Patient

Not all patients require the same level of support. The Vien Gut Model classifies support needs into three levels based on clinical characteristics and risk stratification:

Level	Patient Characteristics	Support Requirement
Minimum support	Fully autonomous, polypharmacy ≤5 medications, no cognitive impairment, green or stable yellow zone	Family member knows the basic plan and can make emergency contact when needed — no regular accompaniment required
Regular support	Polypharmacy 6–10 medications, or one severe disease axis, or yellow zone — mild/moderate cognitive impairment	A dedicated companion accompanies at least every follow-up visit and supervises daily medication management
Mandatory full-time support	Polypharmacy >10 medications, red zone, significant cognitive impairment, multi-organ failure, active Phase 1	A dedicated companion: fully understands the plan, manages medications, monitors vital signs, serves as the primary liaison with the model

The Companion's Role in the Operating System

The companion is not an outsider to the system — they are part of the sufficient-condition layer. The Vien Gut Model records companion information from the first visit, includes them in the onboarding process, and continuously assesses their capacity as part of the collaboration governance framework.

Sufficient Condition 6 ◎ Collaboration and Process Trust (Therapeutic Alliance)

OPERATIONAL DEFINITION

The patient agrees and commits that integrated care means 'one care team — one unified plan': no shopping around on intuition, no self-mixing prescriptions, full disclosure of all medications including herbal remedies and supplements, and accepting referral as a protection mechanism — not a failure.

✔ **MET INDICATORS:**

— Full and honest disclosure of all medications in use including herbal remedies, supplements, and folk medicines
— Not simultaneously receiving treatment elsewhere without informing the model
— Accepts explanations for why certain medications the patient 'trusts' must be paused for safety reasons
— Understands and accepts the referral scenario as a protection mechanism

✘ **NOT YET MET INDICATORS:**

— Conceals medications out of fear of being prohibited or judged
— Simultaneously receiving treatment at multiple facilities without disclosing to the model
— Refuses referral when indicated because of 'not wanting to be hospitalised'
— Follows advice from relatives or social media and changes medications without reporting

4. Three Classification Levels and Rapid Assessment Criteria

Before formally admitting a patient into integrated care, the Vien Gut Model comprehensively assesses the eight sufficient conditions and classifies the patient into one of three levels. This classification is not a fixed label — it is an initial readiness assessment that determines the appropriate onboarding pathway.

Level	Criteria	Model Action
LEVEL A — Ready to participate immediately	Sufficient commitment + minimum understanding + adequate resources + appropriate support + good collaboration + training passed + accepts continuous checks. No lengthy onboarding needed; can enter Phase 1 immediately after Session 0.	Confirm integrated treatment plan and commitment. Establish collaboration-check rhythm at 2–4 weeks.
LEVEL B — Participates but requires supplementation	Missing 1–2 components: insufficient understanding, unstable schedule, weak self-monitoring, no suitable supporter. Still has potential to meet criteria after structured onboarding.	Session 0 + mandatory training + 7-day checklist. Reassess at 2–4 weeks — if met, upgrade to Level A; if not, temporarily downgrade to Level C.
LEVEL C — Temporarily deferred or referred	No commitment, no collaboration, no continuity guarantee, refuses training, refuses periodic checks, or completely lacks a support system when needed. Not necessarily lack of will — may be objective circumstances not yet permitting.	Do not begin integrated outpatient care. Depending on status: refer to social support, appropriate-level referral, or schedule reassessment when circumstances change.

IMPORTANT NOTE ON CLASSIFICATION

A/B/C classification is not a judgement of the patient's value or attitude — it is an assessment of operational capacity at a specific point in time. A Level C patient today may become Level A after 4 weeks of proper onboarding. Conversely, a Level A patient may drop to Level B after an event if not reassessed in time. This is why classification must be a longitudinal monitoring variable, not a one-time label assigned at entry [8].

5. Structured Education — Session 0 and Mandatory Training

Sufficient Condition 7 is the 'gate-lock': without structured training, the patient's desire and commitment cannot be converted into real-life execution capacity. This is the difference between 'the patient agrees to participate' and 'the patient is able to participate.' Training is the bridge that converts intention into measurable capacity.

5.1 Four Mandatory Core Modules

	Content	Operational Objective
1	Model and phase-based targets	The patient knows which phase they are in, the phase target, and why

		'phase-burning' is dangerous. Understands the 'window of opportunity' concept and accepts the phased journey.
2	Home monitoring skills and feedback	Practise red-flag identification per disease axis, practise the 7-day monitoring checklist, know how to make emergency contact through the correct channel.
3	Medication discipline and safety	No self-adjustment, full disclosure, understand why prescriptions must be synchronised across disease axes, understand the real risk of drug interactions in polypharmacy.
4	Data discipline and monitoring schedule	Tests at the correct milestones, standardised records brought to visits, understand the role of trend data and why clinical decisions require longitudinal data — not single snapshots.

5.2 Minimum Post-Training Criteria

Criterion	Assessment Method	Acceptance Threshold
Can execute 7-day checklist	Submit completed checklist after 7 days	≥5/7 days completed, no ≥2 critical-item errors
Passes knowledge check	Standardised 10-item questionnaire on 4 core modules	≥7/10, no errors on any red-flag or medication item
Follows monitoring schedule in first 2–4 weeks	Track actual follow-up and test adherence	≥80% on time, prior contact if changes needed

5.3 Three-Step Process for 'Qualifying' (Converting Level B to Level A)

	Step	Content and Objective
1	**Orientation Interview**	10–15 minutes at the beginning of the first visit: identify realistic expectations, review resources and companion availability, forecast collaboration risks. Outcome: determine Level A/B/C and design appropriate onboarding.
2	**Session 0 + Mandatory Training**	Teach 4 core modules, design a minimal schedule matching actual resources, hand over the 7-day checklist. Include the companion if the patient is Level B/C. Outcome: the patient has minimum operational knowledge for safe first-phase execution.
3	**Integrated Treatment Commitment**	Agree on Phase 1 (Acute Stabilisation) treatment plan, commit to medication discipline and red-flag reporting, reach consensus on the adverse-event response protocol including safety-valve activation scenarios. Outcome: the patient clearly understands 'what to do, when to report, when to call for help.'

6. Collaboration as an Operational Indicator — Longitudinal Monitoring and Continuous Governance

ACADEMIC DECLARATION

In conventional clinical medicine, 'patient collaboration' is treated as an input condition — present or absent — and is typically not measured, not governed, not reassessed. This is one of the largest gaps in the global chronic-disease care model.

The Vien Gut Model proposes a different framework: collaboration is a dynamic variable, changing with disease status, treatment burden, life pressures, and the psychological 'feeling better, dropping out' effect. If not measured and governed longitudinally, collaboration levels will naturally decline — not because the patient is bad but because this is a biological and psychological law of chronic disease.

Declaration: Collaboration is not a one-time 'agreement' but a capacity that must be measured – checked – continuously reinforced as an operational indicator of the model [8],[16],[17].

6.1 Four Collaboration Layers to Monitor

	Specific Manifestation	Consequence When Declining	Consequence When Declining
1 Schedule and data	On-time follow-up, on-time tests, data submitted as requested, complete records	DATA-to-operate becomes incomplete — clinical decisions based on unrepresentative data	DATA-to-operate becomes incomplete — clinical decisions based on non-representative data
2 Medications and sa	Correct time/dose, no self-adjustment, honest disclosure of all medications	Drug interactions uncontrolled; medication-adjustment decisions based on a false picture	Drug interactions go uncontrolled; medication adjustment decisions based on an inaccurate picture

fety			
3 Behaviour and lifestyle	Dietary adherence, exercise, abstinence per disease axis — not 'switching off' after 2–3 weeks	Treatment outcomes gradually eroded — hard to detect via tests until too late	Treatment outcomes gradually erode — hard to detect via tests until it is too late
4 Risk management	Early warning reporting, accepting plan adjustments, accepting referral/reintegration	Safety valve activated late or refused — increased risk of serious adverse events	Safety valve triggered late or refused — increased risk of serious adverse events

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6.2 Assessment Cycles and Feedback Mechanisms

Timing	Assessment Content	Action Based on Results
First 2–4 weeks	Dense checking: 7-day checklist, follow-up rhythm, post-training comprehension level. Early collaboration-risk detection.	If met: confirm Level A, establish standard monitoring rhythm. If not met: increase support, supplementary onboarding.
2–3 months	Assess stability of all 4 collaboration layers, confirm resources still adequate, check supporter still accompanying.	If stable: reinforce discipline, shift to wider assessment intervals. If declining: trigger re-onboarding.
After an event	Reassess as a 'restart': check all 4 layers, identify cause of decline, recheck classification level.	Re-establish commitment, adjust plan to post-event reality, add support if needed.
Upon detecting decline	Trigger 're-onboarding' process: rapid interview to identify which layer is declining and why.	Targeted intervention on the correct layer.

When 'measuring collaboration + reinforcing collaboration' is standardised

The model will reduce longitudinal follow-up discontinuity — by detecting collaboration decline before it becomes treatment abandonment.

The model will reduce cumulative medication errors — because the medication-collaboration layer is checked periodically, not discovered only after an adverse event.

The model will reduce missed red flags — because the risk-handling collaboration layer is continuously reinforced, not gradually lost over time.

The model will increase long-term outcome sustainability — because collaboration is maintained as an operational indicator, not merely an initial promise. [8], [16], [17]

7. Comparison with the Fragmented Care Model

Criterion	Fragmented Model	Vien Gut Model
Patient-role definition	Passive recipient of prescriptions and guidance [13].	Active operational component — eight measurable, governable sufficient conditions.
Participation-capacity assessment	Non-existent — only asks 'does the patient agree?' [14].	Orientation interview + 8-SC assessment + A/B/C classification before starting.
Patient education	Handout, end-of-visit instructions — no comprehension check [15].	Structured training, 4 core modules + execution-capacity check + 7-day checklist.
Family role	Informal — 'the person who drives to the clinic' [13].	Stratified by support level (minimum / frequent / mandatory full-time) and integrated into onboarding.
Collaboration governance	Does not exist as a process — decline detected only when it becomes treatment abandonment [16],[17].	Four collaboration layers, four assessment cycles, re-onboarding mechanism — collaboration is a longitudinal indicator.

Observed outcomes	Uncontrolled adherence decline; red flags missed; treatment discontinuity; patients return at a more advanced stage. [1], [2]	Early detection of collaboration decline; reduced longitudinal follow-up discontinuity; more sustainable long-term outcomes. [8]

7.1 Practice Outcomes — Four Verification Targets and the Role of Sufficient Conditions

The Vien Gut Model has pursued four verification targets on end-organs across 18 years of integrated practice. The consistent observation is: whether targets are achieved or not depends not only on the system's HOW but critically on the patient's sufficient conditions — particularly the collaboration maintained throughout the phased journey.

Verification Target	Key Sufficient Conditions from Patient Side	Practice Observation at Vien Gut (2007–2025)
Target 1 — Crystal-free	Long-term ULT discipline (SC2); dietary adherence (SC8); early flare reporting (SC4)	Crystal-free achieved and sustained only when SC1–4 and SC6 are simultaneously and continuously maintained [8].
Target 2 — Dialysis deferral	On-time eGFR monitoring (SC2, SC4); strict polypharmacy control (SC6); mandatory support system in severe CKD (SC5)	Dialysis deferral for months to years observed in CKD G4–G5 when all 8 SCs are simultaneously met — failure primarily at SC3 (financial interruption) and SC4 (late event reporting) [8].
Target 3 — CV decompensation reduction	Daily weight and oedema monitoring (SC4); no self-adjusting diuretics (SC2, SC6); immediate decompensation-sign reporting (SC4); home vital-sign monitoring by supporter (SC5)	Rehospitalisation reduction most evident in the group with substantive companion support (SC5 mandatory level) and stable risk-management collaboration (SC8 layer 4) [8].
Target 4 — Cirrhosis re-compensation	Absolute avoidance of alcohol and hepatotoxic drugs (SC2, SC6); nutrition per guidelines (SC8 layer 3); early reporting of recurrent ascites or TIPS signs (SC4); home monitoring by supporter (SC5)	Re-compensation sustained in Child–Pugh B patients when SC2, 4, 5, 6 are simultaneously stable. Loss of re-compensation most clearly linked to medication and behavioural collaboration layers declining undetected [8].

Call for Multi-Centre Verification

The practice outcomes above are structured clinical observations from a single centre — not yet randomised controlled evidence. The Vien Gut Model calls for multi-centre verification with specific hypotheses:

H1: When the eight sufficient conditions are assessed in a standardised manner and achieve Level A before initiating integrated treatment, the rate of achieving the four end-organ verification targets is significantly higher compared to the group of patients without adequate sufficient conditions.

H2: When collaboration is governed as a longitudinal indicator (Sufficient Condition 8), the rate of longitudinal follow-up discontinuity is lower and long-term outcomes are more sustainable compared to usual care.

These are two testable hypotheses — designable as a cohort study or stepped-wedge RCT at outpatient polyclinics providing complex chronic multimorbidity care in LMICs. [8]

8. Sufficient Conditions 7 and 8 — From Desire to Capacity, From Commitment to Indicator

Sufficient Condition 7: Participation in Model-Based Training and Education

Sufficient Condition 7 ◎ Participation in Model-Based Training and Education

OPERATIONAL DEFINITION

The 'gate-lock' sufficient condition: without structured training, desire cannot be converted into execution capacity. This is the step that transforms the patient from 'someone who agrees to participate' into 'someone who is able to participate.' Structured training covers 4 mandatory core modules.

✔ **MET INDICATORS:**

- — Completed Session 0 and mandatory training including the companion if required
- — Met minimum post-training criteria: 7-day checklist, comprehension check, 2–4 week initial rhythm
- — Proactively asks questions during training — a sign of genuine desire to understand
- — Participates in supplementary training when required after an adverse event or upon entering a new phase

✘ **NOT YET MET INDICATORS:**

- — Skips Session 0 citing 'busy' or 'already know' without completing the assessment
- — Fails criteria after 2 onboarding cycles — requires reclassification review
- — Companion does not participate in training while the patient requires Level B/C support
- — Refuses retraining after a serious adverse event

Sufficient Condition 8 ◎ Collaboration Checked, Assessed and Continuously Reinforced

OPERATIONAL DEFINITION

The 'system-maintenance' sufficient condition: not established once but maintained continuously. Collaboration is a dynamic variable — it changes with the disease landscape, treatment burden, life pressures, and habituation effects. The model must measure and reinforce collaboration as a longitudinal indicator, not merely trust the initial commitment.

✔ **MET INDICATORS:**

- — Accepts and participates in periodic collaboration assessment cycles — without resistance
- — Self-reports when feeling 'struggling to maintain' before actual decline occurs
- — Participates in re-onboarding after an adverse event without being treated as 'starting over'
- — Companion also participates in assessment cycles when the patient requires regular or mandatory support

✘ **NOT YET MET INDICATORS:**

- — Resists or avoids collaboration assessment cycles
- — Conceals collaboration decline (medication errors, missed appointments) out of fear of 'being criticised'
- — Refuses re-onboarding after an adverse event
- — Does not report when the companion changes or can no longer accompany

9. DATA-to-operate — The Operating Data System Supporting the Clinical Conductor and MDT

In the Vien Gut Model, the patient's 'participation capacity' is not something only the treating physician monitors alone — it is the shared output of a multidisciplinary team (MDT) coordinating along the longitudinal axis under the Clinical Conductor's direction. DATA-to-operate is the operating data system that makes this coordination feasible, consistent and auditable [8],[10].

Without DATA-to-operate, the MDT team is merely a group of specialists sitting together — each looking at one organ system, no one seeing the patient's full longitudinal picture. No one knows which sufficient condition is declining, which collaboration layer is weakening, or which patient needs re-onboarding — until an adverse event reveals the gap.

9.1 DATA-to-operate Structure by Participation-Capacity Axis

Data Group	Monitoring Content	Operational Signal for MDT

Baseline data — entry classification	Orientation interview results, initial A/B/C classification, integrated-treatment commitment, supporter profile, per-condition 8-SC assessment.	Clinical Conductor knows from the first visit who needs enhanced onboarding, who needs supporter activation, who needs dense monitoring in the first 2–4 weeks.
Longitudinal data — collaboration	Follow-up on-time/not, tests on-time/missed, weekly/monthly checklist reports, which collaboration layer is stable/declining, events that occurred.	Clinical Conductor receives signals: who is sliding from A to B, which layer needs immediate intervention. Care navigator knows when proactive reminders are needed.
Clinical data — four disease axes	Time-series eGFR, EF by phase, uric acid by month, liver indices by cycle, continuously updated full-axis medication list.	Imaging physician receives requests at the right milestone with full clinical context; pharmacist monitors polypharmacy and updates interactions whenever the disease axis changes.
Training data — patient capacity	4-core-module check results, 7-day checklist scores, training and re-training history, items the patient misunderstands or frequently forgets.	Care navigator knows which content to emphasise when seeing the patient again; does not repeat what is already adequate, does not skip what is still weak.

9.2 Role of Each MDT Member in Enhancing Sufficient Conditions

MDT Member	Sufficient Conditions Directly Responsible For	Specific Operational Actions
Clinical Conductor *Lead Clinician*	SC 1 — Commitment; SC 6 — Therapeutic Alliance; SC 8 — continuous collaboration governance. Full longitudinal-axis coordination.	Conducts the orientation interview; classifies Level A/B/C; coordinates Session 0; receives DATA-to-operate signals on collaboration decline; triggers re-onboarding when needed; decides on safety-valve activation.
Clinical Pharmacist *Clinical Pharmacist*	SC 2 — correct understanding of polypharmacy; SC 6 — honest medication disclosure; SC 8 Layer 2 — sustainable medication collaboration.	Maintains a continuously updated full-axis medication list in DATA-to-operate; reviews interactions when regimens change; participates in training on 'medication discipline'; provides early warnings of dangerous interactions.
Radiologist / Sonographer *Radiologist / Sonographer*	SC 4 — longitudinal monitoring of measurable end-organ targets; supports DATA-to-operate with standardised imaging data at milestones.	Performs imaging tests at the correct stratification milestones (not too early, not too late); reports using standardised templates integrated into the trend chain; explains results in language the Clinical Conductor can use for patient communication.
Care Navigator / Health Educator *Care Navigator / Health Educator*	SC 2 — understanding enough to act correctly; SC 7 — structured training; SC 8 Layer 3 — sustainable behavioural and lifestyle maintenance.	Delivers Session 0 and 4-core-module training; checks the 7-day checklist; proactively reminds patients based on DATA-to-operate when behavioural-layer decline is detected; contacts patients when appointments are missed; supports companions in capacity building.
Nurse / Administrative Staff *Nurse / Administrative Staff*	SC 3 — resource arrangement; SC 4 — timely communication; SC 5 — liaison with the support system.	Manages follow-up and test schedules per stratification; enters data at correct milestones into DATA-to-operate; confirms the patient's companion before each phase transition; activates the

		emergency communication channel when patients report adverse events.

9.3 Dual Feedback Loop

DUAL FEEDBACK LOOP IN THE VIEN GUT MODEL

Loop 1 — MDT looking at the patient: DATA-to-operate provides real-time signals on collaboration level, participation capacity and disease trends → MDT acts in the right role, at the right time, without waiting for an event to occur.

Loop 2 — Patient looking at themselves: DATA-to-operate is shared back with the patient in appropriate language (uric acid trend, eGFR trend, collaboration history) → the patient sees their own progress → increased motivation to maintain sufficient conditions.

When both loops operate simultaneously, DATA-to-operate is no longer just a medical-record system — it becomes a capacity-building tool: building the MDT's capacity for correct decisions and building the patient's participation capacity for sustainable maintenance [8],[10].

DATA-to-operate in LMIC Settings — Minimal but Complete Principles

The Vien Gut Model recognises that not all LMIC treatment facilities have complex health information systems (HIS). DATA-to-operate follows the 'minimal but complete' principle: it can operate on simple software, paper-based forms, or hybrid systems — as long as four data groups are fully recorded and retrievable per patient at every follow-up.

The feasibility in LMIC settings is precisely one of the bases for the Vien Gut Model's call for multi-centre verification — not only in high-resource environments.

10. Evidence-Level and Inference-Level Declaration

The 'patient role' operational framework is the result of structured observation from 18 years of integrated clinical practice at Vien Gut (2007–2025). The eight sufficient conditions, three classification levels and longitudinal collaboration-governance framework did not originate from theoretical design but from repeatedly identifying the factors that distinguish patients who achieve long-term outcomes from those who interrupt mid-journey [8].

Inference requiring multi-centre verification: when the eight sufficient conditions are assessed in a standardised manner and collaboration is governed as a longitudinal indicator, the model expects reduced follow-up interruption rates, reduced adherence-related adverse events, and sustainably improved outcomes on target-organ verification targets — especially in complex chronic multimorbidity patients in LMIC settings [8].

Inference requiring multi-centre verification: when the eight sufficient conditions are assessed in a standardised manner and collaboration is governed as a longitudinal indicator, the model anticipates reduced follow-up discontinuity rates, fewer adherence-related adverse events, and more sustainable long-term outcomes. These inferences must be tested through formal multi-centre study designs.

11. Scope Limitations

Scope Limitations — This Document Does NOT Include:

✗ Document B.4 presents the operational framework and principles. Detailed assessment tools (orientation interview form, 7-day checklist, comprehension check questionnaire, collaboration tracking chart) are developed in the operational manual series and not included in this academic document.

✗ The eight sufficient conditions are presented at the principled and operational-definition level. Specific

numerical thresholds (e.g., minimum comprehension check score, collaboration assessment frequency per risk stratum) belong to the operational manual scope and may vary by population and treatment context.

✗ The document does not include clinical psychological interventions or cognitive behavioural therapy — these interventions, when necessary, must be performed by qualified professionals and are outside the scope of integrated outpatient care.

✗ Level A/B/C classification is a clinical decision-support tool — not a fixed label and must not be used to refuse care to patients who do not yet meet conditions without a structured reassessment.

12. Position within the Vien Gut Document System

Document B.4 is the participation-capacity axis of Part B. It deploys in detail the patient-side sufficient conditions that B.3 defines at the principle level, provides the foundation for B.5 (enabling conditions when multiple diseases simultaneously impede participation capacity), and is the patient condition for Part C to become feasible in the field.

Document	Title & Core Content	Link to B.4
B.1	The First Visit — Trigger Point for the Four-Axis Integrated Operating System	B.1 collects intake data for patient stratification; B.4 determines the patient's participation capacity — these two assessments jointly determine the Phase 1 (Acute Stabilisation) treatment plan
B.2	Phase-Based Treatment and Longitudinal Follow-Up — Simultaneous Four-Axis T2T	B.2 defines what is done in each phase; B.4 defines who can participate in each phase — follow-up rhythm and complexity depend simultaneously on both
B.3	Necessary and Sufficient Conditions for Finding the Window of Opportunity	B.3 defines sufficient conditions at the principled level; B.4 deploys them in detail as eight measurable and governable conditions
B.4	**The Patient's Role — Operational Framework from the Patient and Family Perspective (this document)**	The participation-capacity axis: eight sufficient conditions, three classification levels, onboarding process, collaboration as a longitudinal indicator
B.5	Enabling Conditions and Priority Principles When Multiple Diseases Coexist	When multiple diseases simultaneously impair participation capacity (chronic fatigue, cognitive decline, pain), B.5 provides principles for adjusting sufficient conditions to clinical reality
B.6	Clinical Case Series — The Model's Ultimate Boundaries	Cases in B.6 concretely demonstrate sufficient conditions and situations requiring re-onboarding after adverse events or loss of collaboration
Part A	Foundations: Why This Model Exists + Key Concepts (A.0–A.5)	Provides the conceptual foundation of WHAT–HOW–DATA and explains why the patient is an irreplaceable component of the operating architecture
Part C	Four Verification Targets on End-Organs — The Centre of the Entire Publication Set	The targets in Part C can only be achieved when the patient's participation capacity is sustainably adequate; B.4 is the patient-side condition that makes Part C feasible

13. Conclusion

The patient's role in the Vien Gut Model is not an appendix added after HOW — it is an independent operational pillar, on equal footing with HOW and DATA-to-operate in the integrated care architecture for complex chronic multimorbidity.

The eight sufficient conditions forming 'participation capacity' are not a list of imposed requirements. They are a framework for assessing who is ready, who needs additional support before starting, and who needs to be protected from a treatment plan that exceeds their actual capacity. When properly assessed and governed, these eight conditions are not barriers — they are the foundation for sustainable treatment outcomes.

In particular, the 'collaboration as an operational indicator' framework is a structural academic contribution: not an ideal-patient model but a practical governance tool for a healthcare system that must operate safely in real life — where collaboration fluctuates, resources are limited, and the clinical picture changes continuously.

When the model creates treatment capacity and the patient creates participation capacity — when these two capacities are measured, built and maintained simultaneously — integrated care for complex chronic multimorbidity truly reaches operational readiness. And then, outcomes no longer depend on luck or the individual excellence of any single physician — they become predictable outcomes of a correctly designed system [8].

PRACTICE PROVENANCE

2007: Vien Gut founded; first observation that the patient's role is the decisive outcome factor — irreplaceable by any system component.2014: Contact with Prof. Thomas Bardin (EULAR); recognised the global gap: no framework for measuring and governing patient participation capacity in chronic multimorbidity.2017–2019: Eight sufficient conditions systematised from longitudinal data; A/B/C classification, onboarding process and continuous collaboration assessment built.2025: 'Collaboration as a longitudinal monitoring indicator' framework finalised; integrated into the Vien Gut Model academic publication set.Evidence basis: 18 years of integrated clinical practice — Nguyen Dinh Quang (2007–2025).

2007 Vien Gut founded; first observation that the patient's role is the decisive outcome factor — irreplaceable by protocol alone.

2014 Contact with Prof Thomas Bardin (EULAR); recognised a global gap: no framework for measuring and governing patient participation capacity in integrated multimorbidity care.

2017–2019 Systematised eight sufficient conditions from longitudinal follow-up data: distinguished Level A, B, C patients; built structured onboarding and collaboration governance.

2025 Finalised the 'collaboration as a longitudinal indicator' operational framework; integrated into the Vien Gut Model academic publication set.

Evidence basis: 18 years of integrated clinical practice at Vien Gut — Nguyen Dinh Quang (2007–2025).

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