

INTERNATIONAL ACADEMIC PUBLICATION DOSSIER

THE VIEN GUT MODEL

Integrated Outpatient Care for Complex Chronic Multimorbidity

Part A - FOUNDATIONAL DOCUMENTS

DOCUMENT A.5

STANDARDIZED TERMINOLOGY TABLE

6 thematic groups • 60 HOW terms • 28 biomarkers and action thresholds
• 18 imaging modalities • 77+ abbreviations

The Vien Gut Model - International Academic Publication Dossier
First systematic compilation - March 2026
Ho Chi Minh City, Vietnam

AUTHORS & ACADEMIC LEADERSHIP

Nguyen Dinh Quang Independent medical researcher | Founder of Vien Gut | Overall design of the HOW - DATA-to-operate / operational layer

CONTRIBUTORS TO THE DESIGN OF HOW AND DATA-TO-OPERATE - VIEN GUT

Nguyen Dinh Quang Huy Contributed to the design of HOW - DATA-to-operate | Systems operations management and transfer organization - The Vien Gut Model

Huynh Phuoc Dai, Nguyen Son Patient-oriented language editing | Communications data management, implementation, and transfer support - The Vien Gut Model

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

Thomas Bardin, Pascal Richette Co-authors of the EULAR recommendations - together with experts in cardiovascular medicine, nephro-urology, hepatology, diabetes, diagnostic imaging, and biostatistics at Universite Paris Cite, France, and Sorbonne University. Transfer of the WHAT of guideline-based treatment for gout and comorbidities; international benchmarking for WHAT; support for the design of HOW - The Vien Gut Model.

DATA GOVERNANCE TEAM - VIEN GUT

Truong Anh Duong, Huynh Hong Duc Data governance and transfer support - The Vien Gut Model

TREATING PHYSICIANS + MULTIDISCIPLINARY TEAM OF VIEN GUT GENERAL CLINIC

Implementation of clinical HOW - risk stratification, windows of opportunity, longitudinal follow-up, risk control, multidrug management, and activation of transfer safety valves.

RESEARCH SITE

France-Vietnam Center for Research on Gout and Chronic Diseases

Vien Gut General Clinic - 13A Hong Ha, Tan Son Hoa, Ho Chi Minh City, Vietnam

POSITION OF THIS DOCUMENT WITHIN THE ACADEMIC DOSSIER OF THE VIEN GUT MODEL

Document A.5 is not a long-form explanatory document on foundational academic concepts like A.1-A.3, nor is it a document that fully defines each term like A.4. A.5 is a condensed standardization reference designed to unify language across the entire dossier. If A.4 is the “full operational dictionary,” then A.5 is the “rapid standardization table” for writers, readers, reviewers, and academic dialogue partners. It standardizes six content groups: the four verification targets, the HOW terminology system, biomarkers and action thresholds, imaging modalities, international guideline terms cited across the dossier, and the standardized abbreviation-symbol system.

A.5 belongs to Tier 1 - Basic Architecture. It serves all of Part A, Part B, Part C, and Part D. Its role is not to replace A.4, but to provide a unified reference so that every document in the dossier uses the same names, symbols, thresholds, and interpretive framework.

READER GUIDE FOR A.5

To understand the overall architectural statement of the dossier, read A.0.

To understand the EBM WHAT - HOW - DATA-to-operate framework, read A.1.

To understand the definitions of the three foundational layers, read A.2.

To understand the international evidence for the global HOW gap, read A.3.

To understand the full definitions of all operational terms, read A.4.

To see how these terms, thresholds, and tools are implemented in the outpatient model, read B.1-B.5.

To see how they are applied to each disease axis, read C.1-C.n.

ABSTRACT

A.5 is the official standardization table of the Vien Gut Model academic dossier. Its purpose is to ensure that all documents in the dossier use the same language, the same notation system, the same naming conventions for the verification targets, the same names for biomarkers and action thresholds, the same imaging toolkit, and the same system of abbreviations. A.5 does not replace A.4 in conceptual depth; rather, it condenses and standardizes what A.4 has already defined in order to support rapid lookup and consistent use throughout drafting, academic dialogue, and validation.

CONTEXT

A multi-layer academic dossier can only remain coherent if all of its documents share one common language. In the Vien Gut Model, this is especially important because the dossier must connect four different layers at once: the academic foundation, the operational model, disease-axis applications, and the dialogue-validation pathway. If documents use different terms for concepts such as “crystal-free,” “remission,” “verification target,” “enabling conditions,” “Clinical Conductor,” “SLA,” “window of opportunity,” “data,” “RWE,” or if they apply inconsistent thresholds, the entire dossier loses coherence. A.5 was written to eliminate that risk.

PURPOSE AND SCOPE OF THE DOCUMENT

Document A.5 has five objectives. First, to standardize the four verification targets and their target organs. Second, to standardize the entire HOW terminology system in condensed form. Third, to standardize the biomarkers and action thresholds used in longitudinal follow-up. Fourth, to standardize the imaging modalities and their verification roles. Fifth, to standardize the international guideline terms and the system of abbreviations and symbols used consistently throughout the entire dossier.

A.5 does not provide extended explanations for each term. To understand the full definition, scope, boundaries, and international cross-reference of any term, the reader must return to A.4. A.5 is a condensed standardization table for rapid reference.

GROUP 1 - THE FOUR VERIFICATION TARGETS AND TARGET ORGANS

Each verification target has a standard name, target organ, verification modality, quantitative objective and action threshold, and these must be used consistently throughout the dossier.

Target	Target organ	Verification modality	Objectives and action thresholds
Target 1 - Crystal-free state	joints, tendons, and soft tissue with MSU crystal deposition	OMERACT joint ultrasound with the double contour sign (DCS), longitudinal tophus volume; DECT for whole-body crystal mapping; X-ray to monitor recovery of bone erosions	Maintain sUA <6 mg/dL continuously; if sUA >6 mg/dL on two consecutive visits, escalate ULT; when active tophi remain, the target may be lowered to <5 mg/dL
Target 2 - Dialysis deferral	renal parenchyma and glomerular filtration function by CKD-EPI 2021	longitudinal eGFR, renal ultrasound for size and echogenicity, renal elastography to follow fibrosis	avoid or defer renal replacement therapy as long as possible; if eGFR falls >25% within 3 months, shorten the SLA; if eGFR <15, request urgent nephrology consultation and discuss RRT
Target 3 - Cardiac decompensation prevention	myocardium, cardiac valves, and the vascular system	echocardiography with Simpson EF, NT-proBNP/BNP trends, troponin I/T, flow Doppler	reduce emergency admissions for decompensated heart failure; if NT-proBNP acutely rises >50%, activate a 24-hour SLA; if EF falls >10 absolute points from baseline, intensify monitoring
Target 4 - Hepatic recompensation	liver parenchyma and degree of fibrosis	FibroScan with LSM, liver ultrasound combined with elastography, albumin, PT-INR, assessment of ascites, Child-Pugh	achieve and maintain hepatic recompensation; if albumin <2.8 g/dL, activate a 48-hour SLA; if new grade 2 or higher ascites appears, request urgent hepatology consultation

GROUP 2 - HOW OPERATIONAL TERMINOLOGY

This group is the condensed version of all 60 terms defined in A.4. Here, only the code, standardized term, nearest international source/reference, core operational meaning, and origin grouping are standardized. For the full definition and international comparison, see A.4.

Group A - Established international terms

Code	Content
A-01	Treat-to-target (T2T) - ACR 2020, EULAR 2016 - a dose-titration strategy toward a specific measurable target (in gout: sUA <6 mg/dL).
A-02	Crystal-free state - EULAR 2006, 2016; ACR 2020 - complete disappearance of MSU crystals, verified by OMERACT ultrasound or DECT.
A-03	Multimorbidity - WHO 2016, Barnett 2012 - >=2 chronic conditions; Vien Gut uses “complex” for the subgroup with >=4 severe diseases.
A-04	Risk stratification - CCM, ESC 2021, KDIGO 2024 - four integrated tiers (T1-T4) according to multi-axis disease burden.
A-05	Integrated care - WHO 2016, Wagner 2001 - multidisciplinary coordination around patient needs rather than disease-specific fragmentation.
A-06	Chronic Care Model (CCM) - Wagner 2001 - a 6-component framework that serves as the theoretical foundation of the Vien Gut outpatient model.
A-07	Real-world evidence (RWE) - FDA 2016, IOM 2013 - evidence generated from routine clinical practice outside controlled trials.

Group B - Terms with equivalent or reinterpreted meanings

Code	Content
B-01	HOW gap - WHO 2004, Eccles 2006 - the structural gap between guideline WHAT and a multimorbidity operational process.
B-02	Verification target - EULAR 2016, ACR 2020 - a treatment target that can be objectively confirmed; all four Vien Gut targets meet this criterion.
B-03	Clinical Conductor - CCM, WHO ICOPE - the physician who coordinates overall care, resolves guideline conflicts, and activates safety valves.
B-04	Fragmented care - Pham 2007, WHO 2023 - each specialty applies its own guideline without structured coordination.
B-05	DATA-to-operate - IOM 2013 - structured longitudinal data that trigger HOW decisions in real time.
B-06	Multidisciplinary team as an operational chain - WHO 2016, CCM - a 7-component MDT functioning as a sensing-response chain.
B-07	WHAT - HOW - DATA-to-operate framework - Graham 2006, WHO 2004 - three layers: guideline, operational process, and longitudinal data.
B-08	Dialysis deferral - KDIGO 2024 - avoidance or deferral of RRT; Verification Target No. 2.

B-09	Cardiac decompensation prevention - ESC 2021 - reduction of admissions for decompensated heart failure; Verification Target No. 3.
B-10	Hepatic recompensation - EASL 2021, Caraceni 2021 - achievement and maintenance of outpatient recompensation; Verification Target No. 4.
B-11	Follow-up SLA - ITIL / healthcare operations - response-time commitments of 4h, 12h, 24h, or 48h.
B-12	Necessary vs sufficient conditions - logic - WHAT is necessary; WHAT + HOW + DATA + patient capacity are sufficient.
B-13	Onboarding - HR management / RCT usage - the structured intake process: multi-axis assessment, stratification, and phase-based planning.
B-14	Phase-based treatment plan - oncology / psychiatry - division of the care journey into phases with distinct goals, transition thresholds, and HOW.
B-15	Complex chronic multimorbidity - WHO 2016, NICE 2016 - >=4 severe diseases, target-organ damage, and structural guideline conflict.
B-16	Kidney function preservation in end-stage CKD - KDIGO 2024 - kidney protection while balancing gout T2T and multi-axis coordination.
B-17	Heart failure decompensation prevention - ESC 2021 - cardiac stabilization, medication-conflict management, and outpatient cardio-renal-gout coordination.
B-18	Hepatic recompensation in end-stage liver disease - EASL 2021, Caraceni - a double blind zone at the gout-cirrhosis interface between EASL and EULAR.

Group C - Terms developed by Vien Gut

Code	Content
C-01	Clinical blind zone - a patient zone that requires treatment but is not fully covered by any guideline.
C-02	Transfer safety valve - a multi-axis threshold system that triggers transfer or intervention according to SLA.
C-03	Clinical priority map - determines the order of intervention when guidelines conflict in the same patient.
C-04	Structural fracture point - the structural limit of the EBM chain at the stage of clinical application.
C-05	Operational conditions - comorbid states managed as prerequisites, not as independent verification targets.
C-06	Guideline paradox - each individual guideline may be followed correctly, yet their combination becomes wrong for the patient as a whole.
C-07	Reference-frame mismatch - a guideline designed for single-disease populations applied to a real-world multimorbid patient over time.
C-08	Blind-zone map - the longitudinal data frame used as the basis for decisions where guideline coverage is absent.
C-09	Sensing-response system - every MDT component both detects signals and responds when thresholds are crossed.
C-10	Window of opportunity - the state in which HOW can still be deployed; the key decision point of the model.
C-11	0-30 day reintegration loop - after a break or decompensation, increase intensity and reassess all four axes.
C-12	Clinical audit trail - the traceable sequence of HOW decisions: who, when, what data, and what action.
C-13	Operational MDT - a 7-role MDT functioning continuously as a sensing-response chain, not just in case conferences.
C-14	Complete blind zone / double blind zone - an intersection where two guidelines are both silent.
C-15	Multi-axis ULT titration - titration of urate-lowering therapy while simultaneously considering eGFR, liver, and heart status.
C-16	Flare control under treatment restriction - HOW for acute gout when NSAIDs, colchicine, and corticosteroids are all limited.
C-17	Cardio-renal coordination during gout T2T - HOW that coordinates sUA, eGFR, and EF in outpatient care.
C-18	Three patient zones (green/yellow/red) - classification by the degree of guideline coverage.
C-19	Three patient-capacity levels (A/B/C) - A proactive, B supported, C team-driven.
C-20	Eight sufficient conditions - the patient-side conditions required for HOW to operate effectively.
C-21	Structured patient training - education tailored to A/B/C level and treatment phase.
C-22	Cooperation as an operational indicator - patient cooperation is a measurable variable.
C-23	Patient behavior science - designing the system around actual patient behavior.
C-24	Sensing-response chain - the 7-step chain from signal collection to action.
C-25	Decision pivot - a branching point with major consequences that requires DATA + priority map + audit trail.
C-26	Decision log - record of the context and rationale behind each decision.
C-27	Pathological spiral - deterioration in one axis drags another axis downward.
C-28	Conflict-resolution matrix - tool to arbitrate when guidelines conflict.
C-29	Visual Medicine - clinical images and videos used as operational data and adherence-enhancement tools.
C-30	Caliper mm ² - ultrasound caliper measurement of urate crystal burden, more quantitative than OMERACT 0-3 alone.
C-31	Learning feedback loop - outcomes + data -> analysis -> HOW improvement -> reimplementation.
C-32	Window of opportunity - operational criteria - criteria set for open / closing / closed states.
C-33	Integrated outpatient care model for complex chronic multimorbidity - the central concept of the entire dossier.
C-34	Multi-organ chronic damage - >=3 damaged axes, each organ simultaneously a target and a treatment constraint.
C-35	Multiple interacting pathological spirals - several spirals acting together, producing decompensation far faster than a single spiral.

GROUP 3 - BIOMARKERS AND ACTION THRESHOLDS

The action thresholds below are predefined values used to escalate HOW within the Vien Gut operational layer. Baseline reference ranges are benchmarked against international guidelines; the operational use of thresholds is specific to the Vien Gut Model.

Gout axis

Lab	Content
XN-01	Serum uric acid (sUA) - target <6 mg/dL; if >6 mg/dL on 2 visits, intensify ULT; if >8 mg/dL, consider urgent ULT optimization. Source: EULAR 2016, ACR 2020.
XN-02	sUA for tophus dissolution - target <5 mg/dL to accelerate tophus resolution; if tophi enlarge on imaging, escalate ULT. Source: EULAR 2016.
XN-03	CRP (inflammatory flare) - trend monitoring during the titration phase; if >50 mg/L with joint symptoms, activate the inflammatory flare protocol. Source: Vien Gut.
XN-04	White blood cell count (WBC) - if WBC >12 x10 ⁹ /L in suspected flare, exclude septic arthritis. Source: Vien Gut.

Kidney axis

Lab	Content
XN-05	eGFR (CKD-EPI 2021) - stages: G3a >=45, G3b >=30, G4 >=15, G5 <15; if it falls >25% in 3 months, shorten the SLA; if <15, urgent consultation. Source: KDIGO 2024.
XN-06	Serum creatinine (SCr) - acute rise >26 umol/L within 48 hours = AKI; hold nephrotoxic drugs. Source: KDIGO 2024.
XN-07	Serum potassium (K+) - target 3.5-5.0 mmol/L; if >6.0, SLA 4 hours; if <3.0, SLA 12 hours. Source: KDIGO 2024.
XN-08	Serum bicarbonate (HCO ₃ ⁻) - <18 mmol/L suggests metabolic acidosis and requires ULT reconsideration; target >=22 in CKD. Source: KDIGO 2024.
XN-09	Proteinuria (UPCR/PCR) - >100 mg/mmol indicates nephrology referral; upward trend requires faster kidney-axis follow-up. Source: KDIGO 2024.
XN-10	24-hour urinary uric acid (UUA24h) - used to identify the hyperuricemia phenotype and guide ULT choice. Source: ACR 2020.

Cardiovascular axis

Lab	Content
XN-11	NT-proBNP - acute increase >50% from baseline triggers a 24-hour SLA; outpatient target <125 pg/mL in HFrEF. Source: ESC 2021.
XN-12	BNP - substitute for NT-proBNP when needed; >400 pg/mL acutely should prompt urgent cardiology review. Source: ESC 2021.
XN-13	Troponin I/T - any value above the 99th percentile threshold requires exclusion of ACS; if elevated in cardiorenal syndrome, review multidisciplinary implications. Source: ESC 2021.
XN-14	Ejection fraction (EF) - HFrEF <40%, HFmrEF 40-49%, HFpEF >=50%; if EF falls >10 absolute points from baseline, intensify monitoring. Source: ESC 2021.
XN-15	Heart rate (HR) - target 50-70 in HFrEF on beta-blockers; if resting HR >110, review treatment. Source: ESC 2021.
XN-16	Blood pressure (BP) - target <130/80 in CKD + HF; if SBP <90, hold diuretics and review urgently. Source: ESC 2021; KDIGO 2024.

Liver axis

Lab	Content
XN-17	Liver stiffness measurement (LSM/FibroScan) - F0-F1 <7.0; F2 7-9.4; F3 9.5-12.4; F4 >=12.5; >20 kPa suggests high portal-hypertension risk. Source: EASL 2021.
XN-18	Serum albumin - <2.8 g/dL triggers a 48-hour SLA; also a Child-Pugh variable. Source: EASL 2021.
XN-19	PT-INR - >1.7 suggests high bleeding risk; also a Child-Pugh variable. Source: EASL 2021.
XN-20	Total bilirubin (T-Bili) - >34 umol/L suggests worsening liver function and must be considered in Child-Pugh follow-up. Source: EASL 2021.
XN-21	ALT/AST - ALT >3x ULN requires holding hepatotoxic drugs; check at each ULT dose adjustment. Source: EASL 2021.
XN-22	GGT - used to monitor alcohol exposure, especially important in Child-Pugh B/C. Source: Vien Gut.
XN-23	Serum sodium (Na+) - <130 mmol/L triggers a 24-hour SLA; commonly encountered in decompensated cirrhosis. Source: EASL 2021.
XN-24	Ascites grading - Grade 1 ultrasound only, Grade 2 clinically detectable, Grade 3 tense; any new Grade >=2 requires urgent hepatology consultation. Source: EASL 2021.

Multidrug safety

Lab	Content
-----	---------

XN-25	Morning cortisol - <3 ug/dL suggests adrenal insufficiency; SLA 4 hours; screen in patients with prolonged corticosteroid exposure. Source: Vien Gut.
XN-26	Hemoglobin (Hb) - <7 g/dL triggers a 12-hour SLA; <8 g/dL with symptoms triggers a 24-hour SLA. Source: Vien Gut.
XN-27	Platelet count (PLT) - if <50, avoid NSAIDs and reassess bleeding risk. Source: Vien Gut.
XN-28	Blood glucose / HbA1c - target HbA1c 7.0-8.0% in type 2 diabetes + CKD; blood glucose >16.7 mmol/L activates the acute hyperglycemia protocol. Source: Vien Gut.

GROUP 4 - IMAGING MODALITIES AND FUNCTIONAL VERIFICATION

Each modality below is a standard verification tool for one or more verification targets. The “Target” column corresponds to Targets 1-4.

Code	Content
HA-01	OMERACT joint ultrasound - Target 1 - primary verification tool for crystal-free status in joints and tendons; key parameters: DCS, longitudinal tophus volume, Power Doppler synovitis.
HA-02	Dual-energy CT (DECT) - Target 1 - whole-body crystal mapping; key parameter: total urate volume, including subclinical crystal burden not seen on ultrasound.
HA-03	Joint X-ray - Target 1 - long-term follow-up of bone erosions and tophus calcification; parameters: size and number of erosions.
HA-04	Musculoskeletal MRI - Target 1 - used in complex cases; parameters: bone marrow edema, confirmation of DECT findings.
HA-05	Kidney ultrasound - Target 2 - longitudinal structural evaluation in CKD; parameters: kidney size, cortical thickness, echogenicity, obstruction.
HA-06	Renal elastography (ARFI/SWE) - Target 2 - non-invasive assessment of renal fibrosis; parameters: renal stiffness, trend monitored every 12 months.
HA-07	Transthoracic echocardiography - Target 3 - principal tool for structural and functional cardiac assessment; parameters: Simpson EF, wall motion, valvular function, pericardial effusion.
HA-08	Tissue Doppler imaging (TDI) - Target 3 - assessment of diastolic function; parameters: E/e', mitral annular e' velocity.
HA-09	Cardiac MRI (CMR) - Target 3 - quantification of fibrosis and complex myocardial injury; parameters: LGE, T1/T2 mapping.
HA-10	Coronary CT - Target 3 - evaluation of coronary disease as a cause of heart failure; parameters: calcium score, degree of stenosis.
HA-11	FibroScan (transient elastography) - Target 4 - principal longitudinal tool for liver fibrosis follow-up; parameters: LSM, CAP.
HA-12	Liver ultrasound - Target 4 - assessment of liver structure, portal hypertension, and ascites; parameters: liver size, liver surface, splenomegaly, ascites volume.
HA-13	ARFI/SWE elastography - Target 4 - alternative to FibroScan when ascites or obesity is present; parameter: shear-wave velocity.
HA-14	Esophagogastroduodenoscopy - Target 4 - assessment of esophageal varices and portal-hypertension complications; parameters: variceal grade, portal hypertensive gastropathy.

GROUP 5 - INTERNATIONAL GUIDELINE TERMS CITED IN THE DOSSIER

This group standardizes international guideline terms used in their original meaning throughout the dossier.

Code	Content
GL-01	Treat-to-target (T2T) - EULAR 2016, ACR 2020 - dose titration toward a measurable target.
GL-02	GRADE - Guyatt et al. - the system for rating evidence quality and recommendation strength.
GL-03	OCEBM evidence hierarchy - Sackett et al. - the framework for stratifying levels of evidence.
GL-04	Living guideline - WHO, NICE, EULAR - continuously updated guidelines that still do not solve the structural HOW gap.
GL-05	Conservative CKD management - KDIGO 2024 - management of advanced CKD before dialysis to maximize function and defer RRT.
GL-06	CKD staging (G1-G5) - KDIGO 2024 - staging by eGFR.
GL-07	Child-Pugh score - EASL - severity assessment in cirrhosis.
GL-08	MELD score - EASL - model predicting 90-day mortality in cirrhosis.
GL-09	HFrEF / HFmrEF / HFpEF - ESC 2021 - heart failure classification by EF.
GL-10	Decompensation (heart failure) - ESC 2021 - acute worsening of heart failure requiring hospitalization.
GL-11	Recompensation (cirrhosis) - EASL 2021 - reversal of all decompensating events.
GL-12	SLA (service-level agreement) - health informatics / operations - maximum response time for a trigger.
GL-13	MDT (multidisciplinary team) - WHO, NHS, NICE - general international term; the Vien Gut structure has specific features.
GL-14	GPP (Good Pharmacy Practice) - WHO, FIP - pharmacy quality standard.
GL-15	EMR / EHR - health informatics - electronic medical/health record.
GL-16	CDSS - health informatics - clinical decision support system.
GL-17	CCM (Chronic Care Model) - Wagner 2001 - six-component chronic care framework.
GL-18	Know-do gap - WHO 2004 - the gap between scientific knowledge and clinical practice.

GROUP 6 - ABBREVIATIONS AND SYMBOLS

The abbreviations and symbols below must be used consistently throughout the dossier. An asterisk (*) marks terms specific to the Vien Gut Model. All other terms follow standard international definitions.

Abbreviation	English	Meaning / standard use in this dossier
ACR	American College of Rheumatology	US rheumatology society.
AKI	Acute Kidney Injury	Acute deterioration in kidney function.
ALT	Alanine aminotransferase	Liver enzyme used in hepatotoxicity monitoring.
AM Cortisol	Morning serum cortisol	Morning cortisol measurement.
ARFI	Acoustic Radiation Force Impulse	Elastography method using acoustic radiation force.
AST	Aspartate aminotransferase	Liver / muscle enzyme used in monitoring.
BNP	B-type Natriuretic Peptide	Biomarker used in heart failure assessment.
BP	Blood Pressure	Blood pressure.
CAP	Controlled Attenuation Parameter	FibroScan parameter reflecting steatosis / attenuation.
CCM	Chronic Care Model	Six-component chronic care framework.
CDSS	Clinical Decision Support System	Digital system supporting clinical decisions.
CKD	Chronic Kidney Disease	Chronic kidney disease.
CMR	Cardiac Magnetic Resonance	Cardiac MRI.
CRP	C-reactive protein	Inflammation biomarker.
CT	Computed Tomography	Computed tomography.
DATA-to-operate*	Operational longitudinal data	Structured longitudinal data used to trigger action.
DCS	Double Contour Sign	Ultrasound sign of urate crystal deposition.
DECT	Dual-Energy Computed Tomography	Dual-energy CT.
BG	Blood glucose	Blood glucose.
T2DM	Type 2 Diabetes Mellitus	Type 2 diabetes.
DMARD	Disease-Modifying Anti-Rheumatic Drug	Disease-modifying anti-rheumatic drug.
EASL	European Association for the Study of the Liver	European hepatology society.
EF	Ejection Fraction	Left ventricular ejection fraction.
eGFR	Estimated Glomerular Filtration Rate	Estimated glomerular filtration rate.
EHR / EMR	Electronic Health / Medical Record	Electronic health / medical record.
ESC	European Society of Cardiology	European cardiology society.
EULAR	European Alliance / League Against Rheumatism	European rheumatology organization.
FibroScan	Transient elastography device	Device used to measure liver stiffness.
GGT	Gamma-glutamyl transferase	Liver-related enzyme.
GPP	Good Pharmacy Practice	Pharmacy quality standard.
GRADE	Grading of Recommendations Assessment, Development and Evaluation	Framework for rating evidence quality.
Hb	Haemoglobin	Hemoglobin.
HbA1c	Glycated haemoglobin	Glycated hemoglobin.
HCO3-	Bicarbonate	Serum bicarbonate.
HF	Heart Failure	Heart failure.
HFmrEF	Heart Failure with mildly reduced EF	Heart failure with mildly reduced EF.
HFpEF	Heart Failure with preserved EF	Heart failure with preserved EF.
HFrEF	Heart Failure with reduced EF	Heart failure with reduced EF.
HOW*	Structured clinical operational process	The structured clinical operating layer.
HOW gap*	HOW gap	Structural gap between WHAT and HOW.
HR	Heart Rate	Heart rate.
INR	International Normalised Ratio	Coagulation index.
K+	Potassium	Potassium.
KDIGO	Kidney Disease: Improving Global Outcomes	International kidney guideline organization.
LGE	Late Gadolinium Enhancement	MRI marker of fibrosis / scar.
LMIC	Low- and Middle-Income Countries	Low- and middle-income countries.
LSM	Liver Stiffness Measurement	Measurement of liver stiffness.
MDT	Multidisciplinary Team	Multidisciplinary team.
MELD	Model for End-Stage Liver Disease	Liver disease prognostic score.
MRI	Magnetic Resonance Imaging	Magnetic resonance imaging.
MSU	Monosodium Urate	Monosodium urate.
Na+	Sodium	Sodium.
NHS	National Health Service	National Health Service.
NICE	National Institute for Health and Care Excellence	UK health and care guideline institute.
NSAIDs	Non-Steroidal Anti-Inflammatory Drugs	Non-steroidal anti-inflammatory drugs.
NT-proBNP	N-terminal pro-B-type Natriuretic Peptide	Heart-failure biomarker.
OCEBM	Oxford Centre for Evidence-Based Medicine	Oxford evidence-based medicine framework.
OMERACT	Outcome Measures in Rheumatology	Rheumatology outcomes initiative.
PCR (urine)	Protein-to-Creatinine Ratio	Urine protein-to-creatinine ratio.

PLT	Platelet count	Platelet count.
PT	Prothrombin Time	Prothrombin time.
RA	Rheumatoid Arthritis	Rheumatoid arthritis.
RCT	Randomized Controlled Trial	Randomized controlled trial.
RRS	Rapid Response System	Rapid response system.
RRT	Renal Replacement Therapy	Renal replacement therapy.
SCr	Serum Creatinine	Serum creatinine.
SGLT2i	Sodium-Glucose Cotransporter-2 Inhibitor	SGLT2 inhibitor.

FINAL NOTE

A.5 is a continuously updated reference document. When new terms, biomarkers, action thresholds, or verification modalities are standardized within the dossier, A.5 will be the first place to be updated in order to preserve consistency across the entire dossier.

REFERENCES

The references for A.5 are organized into six thematic groups corresponding to the six terminology groups above. The bracketed numbering is used consistently throughout the full 36-document dossier. Group 1 covers gout guidelines and verification targets; Group 2 covers integrated care and multimorbidity; Group 3 covers laboratory guidelines and biological thresholds; Group 4 covers imaging modalities and international standards; Group 5 covers implementation science and guideline frameworks; Group 6 covers operations and governance. The complete reference list for A.5 is retained exactly as in the original version.

- [1] FitzGerald JD, Dalbeth N, Mikuls T, et al. 2020 American College of Rheumatology Guideline for the Management of Gout. *Arthritis Care Res.* 2020;72(6):744–760.
- [2] Richette P, Doherty M, Pascual E, et al. 2016 updated EULAR evidence-based recommendations for the management of gout. *Ann Rheum Dis.* 2017;76(1):29–42.
- [3] Zhang W, Doherty M, Bardin T, et al. EULAR evidence based recommendations for gout. Part II: Management. *Ann Rheum Dis.* 2006;65(10):1312–1324.
- [4] Neogi T, Jansen TL, Dalbeth N, et al. 2015 Gout Classification Criteria: an ACR/EULAR collaborative initiative. *Ann Rheum Dis.* 2015;74(10):1789–1798.
- [5] Pascual E, Sivera F, Andres M. Synovial fluid analysis for crystals. *Curr Opin Rheumatol.* 2011;23(2):161–169.
- [6] World Health Organization. *Framework on Integrated, People-centred Health Services.* Geneva: WHO; 2016.
- [7] Barnett K, Mercer SW, Norbury M, et al. Epidemiology of multimorbidity and implications for health care. *Lancet.* 2012;380(9836):37–43.
- [8] Wagner EH, Austin BT, Davis C, et al. Improving chronic illness care: translating evidence into action. *Health Aff.* 2001;20(6):64–78.
- [9] World Health Organization. *Integrated Care for Older People (ICOPE).* Geneva: WHO; 2019.
- [10] Tinetti ME, Bogardus ST Jr, Agostini JV. Potential pitfalls of disease-specific guidelines for patients with multiple conditions. *N Engl J Med.* 2004;351(27):2870–2874.
- [11] Guthrie B, Payne K, Alderson P, McMurdo ME, Mercer SW. Adapting clinical guidelines to take account of multimorbidity. *BMJ.* 2012;345:e6341.
- [12] Pham HH, Schrag D, O'Malley AS, Wu B, Bach PB. Care patterns in Medicare and their implications for pay for performance. *N Engl J Med.* 2007;356(11):1130–1139.
- [13] World Health Organization. *Global Action Plan for the Prevention and Control of NCDs 2013–2030.* Geneva: WHO; 2023.
- [14] KDIGO CKD Work Group. *KDIGO 2024 Clinical Practice Guideline for CKD.* *Kidney Int.* 2024;105(4S):S117–S314.
- [15] McDonagh TA, Metra M, Adamo M, et al. 2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure. *Eur Heart J.* 2021;42(36):3599–3726.
- [16] European Association for the Study of the Liver (EASL). *EASL Clinical Practice Guidelines for decompensated cirrhosis.* *J Hepatol.* 2018;69(2):406–460.
- [17] Caraceni P, Tonon M, Vizzutti F, et al. Definition and diagnosis of refractory ascites in cirrhosis. *Dig Liver Dis.* 2019;51(5):611–615.

- [18] Inker LA, Eneanya ND, Coresh J, et al. New Creatinine- and Cystatin C–Based Equations to Estimate GFR without Race. *N Engl J Med*. 2021;385(19):1737–1749.
- [19] Thygesen K, Alpert JS, Jaffe AS, et al. Fourth Universal Definition of Myocardial Infarction. *J Am Coll Cardiol*. 2018;72(18):2231–2264.
- [20] Gutierrez M, Schmidt WA, Thiele RG, et al. International Consensus for ultrasound lesions in gout. *Rheumatology*. 2015;54(10):1797–1805.
- [21] Bongartz T, Glazebrook KN, Kavros SJ, et al. Dual-energy CT for the diagnosis of gout. *Ann Rheum Dis*. 2015;74(6):1072–1077.
- [22] Cassinotto C, Boursier J, de Lédinghen V, et al. Liver stiffness in NAFLD: a comparison of SSI, FibroScan, and ARFI with liver biopsy. *Hepatology*. 2016;63(6):1817–1827.
- [23] Lang RM, Badano LP, Mor-Avi V, et al. Recommendations for cardiac chamber quantification by echocardiography in adults. *J Am Soc Echocardiogr*. 2015;28(1):1–39.
- [24] Dietrich CF, Bamber J, Berzigotti A, et al. EFSUMB Guidelines on Clinical Use of Liver Ultrasound Elastography. *Ultraschall Med*. 2017;38(4):377–394.
- [25] Eccles MP, Mittman BS. Welcome to Implementation Science. *Implement Sci*. 2006;1:1.
- [26] Grol R, Grimshaw J. From best evidence to best practice: effective implementation of change. *Lancet*. 2003;362(9391):1225–1230.
- [27] Graham ID, Logan J, Harrison MB, et al. Lost in knowledge translation: time for a map? *J Contin Educ Health Prof*. 2006;26(1):13–24.
- [28] World Health Organization. Knowledge translation for public health. Geneva: WHO; 2004.
- [29] Guyatt GH, Oxman AD, Vist GE, et al. GRADE: an emerging consensus on rating quality of evidence. *BMJ*. 2008;336(7650):924–926.
- [30] Sackett DL, Rosenberg WM, Gray JA, Haynes RB, Richardson WS. Evidence based medicine: what it is and what it isn't. *BMJ*. 1996;312(7023):71–72.
- [31] Pronovost PJ, Berenholtz SM, Needham DM. Translating evidence into practice: a model for large scale knowledge translation. *BMJ*. 2008;337:a1714.
- [32] Coleman EA. Falling through the cracks: challenges for improving transitional care for persons with complex care needs. *J Am Geriatr Soc*. 2003;51(4):549–555.
- [33] Ronco C, Haapio M, House AA, Anavekar N, Bellomo R. Cardiorenal syndrome. *J Am Coll Cardiol*. 2008;52(19):1527–1539.
- [34] Deane KD, O'Donnell CI, Hueber W, et al. The number of elevated cytokines in preclinical seropositive RA predicts time to diagnosis. *Arthritis Rheum*. 2010;62(11):3161–3172.
- [35] Institute of Medicine (IOM). Best Care at Lower Cost: The Path to Continuously Learning Health Care in America. Washington DC: National Academies Press; 2013.