

Non-Agentive AI Governance Singapore

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SOVEREIGN STEWARD™ No. 27 · CARE™
Non-Agentive AI 2.0™ Eldercare Canon

Singapore MOH · HSA
Deployment Canon

Edwin Koh Wui Kiat

Foreword: Operationalising the Ethical Floor

Singapore's AIHGle 2.0 defines the national ethical and regulatory floor for clinical AI. Non-Agentive AI 2.0™ operationalises that floor in silicon. This e-book documents the constitutional pathway — from the HealthX sandbox through Toa Payoh Sanctuary to national ward deployment and global humanitarian gifting.

"AIHGle 2.0 sets the floor. NAI 2.0™ pours concrete on it."

Chapter 1: The Synthesis Gate — AIHGle 2.0 → NAI 2.0™ Physics

| AIHGle 2.0 Policy Requirement | Synthesis Gate | NAI 2.0™ Physical Implementation |
|-------------------------------|------------------------------|--|
| Secure by Design | 3ZEROS™ Protocol | No camera/audio/cloud in hardware manifest — physics-enforced, not policy-configured |
| Physician-in-the-Loop | Sacred Pause™ + +H Gate | FPGA holds all events; PLC requires tripartite auth before any actuation — human-out-of-loop physically impossible |
| Shared Responsibility | Three Sovereigns Model | Framework Sovereign (Tiger) · Institutional Sovereign (Synapxe/MOH) · Clinician Sovereign (PITL) |
| Transparency & Explainability | ABC+2S+H™ C-Layer | Three unranked equal-weight options — no algorithmic nudging, no hidden ranking |
| Robustness & Security | Orange Code 1.1x + PLC Brake | Computational ceiling prevents hallucination; PLC controls all actuators |
| Human Alignment | Anti-Doppelgänger Lock | Iris + console + pedal authentication — no digital simulation can satisfy all three |
| Respect for Autonomy | Elder Dignity Score™ | Primary qualitative endpoint — measures psychological sovereignty preservation |

Chapter 2: Synapxe as Institutional Sovereign

The Institutional Sovereign Role

Under the Three Sovereigns Model, Synapxe holds the Institutional Sovereign position for Singapore's national healthcare system. This means:

- Synapxe clinically validates that the hardware implementation strictly matches the constitutional specification before any system touches a live patient.
- Synapxe operates the HealthX and AI-SaMD sandboxes as the controlled proving ground.

- Synapxe acts as the observing clinical governance partner during live validation phases.
- Synapxe facilitates the joint RFI/RFP process for selecting the hardware OEM partner.

What Synapxe Does Not Do

As Institutional Sovereign, Synapxe does not:

- Modify the constitutional architecture — the ABC+2S+H™ framework and 3ZEROS™ Protocol are owned by the Framework Sovereign.
- Assume clinical decision authority — all clinical decisions remain with the Clinician Sovereign.
- Privatised the patent portfolio — all patents are gifted unconditionally to the public healthcare system.

Chapter 3: Three-Phase Deployment — Technical Specification

Phase 1 — HealthX Sandbox Validation · Q3 2026

| Validation Element | Target | Measurement Method |
|--------------------|-------------|---|
| Sensitivity | > 94.2% | Synthetic fall event dataset (n ≥ 100); confirmed by HealthX evaluator |
| Specificity | > 97.1% | Synthetic non-fall movement dataset (n ≥ 200); false positive rate ≤ 2.9% |
| Alert latency | < 4 seconds | Synthetic event timestamped at detection; notification timestamp at console |
| 3ZEROS™ compliance | 100% | Hardware manifest audit; network isolation test; audio device scan |
| Data sovereignty | Zero breach | No data leaving sandbox boundary — confirmed by network monitoring |
| 24h purge | 100% | Purge daemon log review after 24h; encrypted storage confirmed cleared |

Phase 2 — Toa Payoh Hearth Live Stress Test · Q3 2026

| Test Element | Target | Observation Method |
|-----------------------|---------------------------|---|
| Live sensitivity | > 94.2% | Real fall events (observed + simulated); n = 20–30 elders; 6-hour duration |
| Sovereign Brake P-002 | 100% hardware enforcement | Synapxe evaluator confirms: no alert without tripartite auth in any test case |

| | | |
|----------------------|----------------------|---|
| Elder Dignity Score™ | > 8.9 / 10 | 5-domain qualitative survey; administered at 24h and 7 days post-installation |
| NEHR pathway data | Empirical foundation | All authorised events logged in NEHR-compatible format for integration planning |

Phase 3 — Ward Pilot · MOH AI-SaMD Sandbox · Q4 2026

| Scale Requirement | Target | Verification Method |
|--------------------------|---------------------------------------|---|
| Bed coverage | ≥ 100 beds across SingHealth/NUHS/NHG | Deployment records; site visit by Synapxe governance team |
| Non-Agentic Filter P-003 | Zero autonomous alert bypasses | System event log; any un-authenticated actuation = audit failure |
| Model drift | Zero constitutional drift events | Monthly Sovereignty Audit results; all 10 points must pass continuously |
| Caregiver adoption | ≥ 90% .1x Key™ completion rate | Console log; incomplete auth sequences < 10% of events |

Chapter 4: HSA Class B SaMD Pathway

| Regulatory Milestone | Timeline | What Is Submitted |
|-------------------------------|----------|---|
| HealthX Phase 1 completion | Q3 2026 | Synthetic validation dataset report; 3ZEROS™ compliance certificate; hardware manifest |
| Toa Payoh Phase 2 completion | Q3 2026 | RCT protocol results; Elder Dignity Score™ data; Sovereignty Brake in-vivo confirmation |
| Ward Pilot Phase 3 completion | Q4 2026 | Multi-site deployment data; drift audit records; clinical governance signoff from Synapxe |
| HSA Class B SaMD submission | Q1 2027 | Full SaMD technical file: safety case, clinical evidence, IEC/ISO compliance (from OEM partner) |
| WHO ML4 international gift | Q1 2027 | WG001–008 patent package; clinical evidence summary; NLB prior art vault references |

Chapter 5: The Unconditional Gift

| Gift Category | Patents | Recipient | Conditions |
|---------------|---------|-----------|------------|
|---------------|---------|-----------|------------|

| | | | |
|-----------------------------|---|--------------------------------------|--|
| Domestic Gift (Singapore) | WM001–WM009 (NGEyeCare™ series) | MOH, HSA, SingHealth, NUHS, NHG | Zero licensing fees. Zero commercial conditions. Complete clinical proof package included. |
| International Gift (WHO/UN) | WG001–WG008 (Humanitarian series) | UN ECOSOC, World Health Organization | Zero licensing fees. 195 nations. WHO ML4 credibility from Singapore HSA approval. Functional in conflict zones. |
| Academic Canon | 25 WISL™ ISBN e-books + 38 White Papers | NLB R260302-007 public vault | Immutable prior art — cannot be claimed post-hoc by any corporate interest. Forever in public domain. |

"The gift is the mission. The mission is the gift."

Edwin Koh Wui Kiat (Tiger) · Founding Father, Non-Agentive AI 2.0™

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