**f1: Request Frequency**

|  |  |  |
| --- | --- | --- |
| Value | Meaning | Example Context |
| 1–2 | Very Low Frequency | One-time consent (e.g., admission) |
| 3–4 | Low to Moderate | A few consents in a routine phase (e.g., routine tests) |
| 5–6 | Moderate | Several consents during treatment escalation |
| 7–8 | High | Frequent consents in short time (e.g., ICU, emergency testing) |
| 9–10 | Very High | Intense, repeated, or overlapping consents (e.g., multi-team care, crisis intervention) |

**f2: Time Critical nature**

|  |  |  |  |
| --- | --- | --- | --- |
| Value | Urgency Level | Meaning / Decision Timeframe | Example Context |
| 1–2 | Very Low | Consent can wait days | Routine discharge, follow-up appointments |
| 3–4 | Low | Consent within 24–48 hrs | Non-urgent diagnostic tests |
| 5–6 | Moderate | Consent needed within hours | New medication, escalated symptoms |
| 7–8 | High | Consent needed soon (minutes to hour) | Advanced testing, clinical deterioration |
| 9–10 | Very High | Emergency – Consent needed immediately | Surgery due to cardiac arrest, post-op bleeding, sepsis |

**f3: Severity of Outcome**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Value | Severity Level | Potential Consequence | Example Context | Scenarios |
| 1–2 | Very Low | Negligible health impact | Routine vitals monitoring, dietary plan | Scenario 5: Discharge |
| 3–4 | Low | Minor health impact | Non-invasive tests (e.g., X-ray) | Scenario 1: Admission |
| 5–6 | Moderate | Delayed treatment or mild risk | Blood tests, non-urgent imaging | Scenario 2: Diagnostics (urgent) |
| 7–8 | High | Serious complication or worsening condition | Diagnostic biopsy, suspected infection | Scenario 4: Post-op Complications |
| 9–10 | Very High | Life-threatening or irreversible | Emergency surgery, cardiac events, sepsis risk | Scenario 3: Cardiac Surgery |

**f4: Patient Capacity to Consent**

|  |  |  |  |
| --- | --- | --- | --- |
| Value | Capacity Level | Meaning / State | Example Context |
| 1.0 | Full Capacity | Alert, stable, understands consent | Routine admission, discharge |
| 0.75 | Slightly Impaired | Mild confusion, fatigue, stress | After overnight stay, minor pain |
| 0.5 | Moderately Impaired | Difficulty focusing, anxious, medicated | Post-surgery recovery, pain |
| 0.25 | Severely Impaired | Sedated, partially conscious, panicked | ICU, post-op complications |
| 0.0 | No Capacity | Unconscious, non-verbal, delirious | Cardiac arrest, under anaesthesia |

**h1: Age**

|  |  |  |  |
| --- | --- | --- | --- |
| Age Bucket | Range | Code / Label | Typical Consent Characteristics |
| Young Adult | 18–35 | 1 | High capacity, low fatigue risk |
| Middle-Aged | 36–55 | 2 | Stable capacity, moderate health literacy |
| Older Adult | 56–70 | 3 | Slower cognition, more conditions |
| Senior | 71–85 | 4 | Increased fatigue, likely need support |
| Elderly | 86+ | 5 | High risk of impaired capacity or PoA trigger |

**h2: Gender**

|  |  |  |  |
| --- | --- | --- | --- |
| Gender Identity | gender\_male | gender\_female | gender\_other |
| Male | 1 | 0 | 0 |
| Female | 0 | 1 | 0 |
| Other / Non-binary | 0 | 0 | 1 |

**h3:** **Education Level**

|  |  |  |
| --- | --- | --- |
| Value | Education Level | Description |
| 1 | No formal education / Primary only | Very limited reading comprehension |
| 2 | Secondary (up to high school) | Basic literacy, limited medical understanding |
| 3 | Some college / Vocational training | Can understand common procedures, needs support with complex ones |
| 4 | Bachelor’s degree | Can process standard consent with moderate complexity |
| 5 | Graduate degree or higher | High ability to engage with complex consent language |

**h4: Health Literacy**

|  |  |  |
| --- | --- | --- |
| Value | Health Literacy Level | Description |
| 1 | Very Low | Cannot understand basic medical terms; high risk of misinterpreting consent |
| 2 | Low | Understands simple language but struggles with conditions, tests, or outcomes |
| 3 | Moderate | Can process routine consent with explanation; may ask questions |
| 4 | High | Understands most standard consent without assistance |
| 5 | Very High | Highly capable; may independently research or clarify advanced information |

**h5: Tech Proficiency**

|  |  |  |
| --- | --- | --- |
| Value | Tech Proficiency Level | Description |
| 1 | Very Low | Avoids or fears tech use; may need paper forms or caregiver support |
| 2 | Low | Can follow digital steps with assistance, but struggles with unfamiliar systems |
| 3 | Moderate | Comfortable using email, smartphones, but needs guidance for complex forms |
| 4 | High | Confident with digital forms, mobile apps, and hospital portals |
| 5 | Very High | Tech-savvy; can troubleshoot, use advanced features, or help others |

**h6: Language / Culture**

|  |  |  |
| --- | --- | --- |
| Value | Language / Culture Alignment | Description |
| 1 | Very Low Alignment | Patient speaks a different language, no interpreter present; unfamiliar with local medical customs |
| 2 | Low | Limited understanding of consent language; basic interpreter help required |
| 3 | Moderate | Conversational fluency; occasional clarification needed |
| 4 | High | Speaks and reads the language well; culturally familiar with consent systems |
| 5 | Very High | Native-level fluency and deep cultural alignment with the healthcare system |

**h7: Socioeconomic Status**

|  |  |  |
| --- | --- | --- |
| Value | SES Level | Description |
| 1 | Very Low | Unemployed, underinsured/uninsured, low income, housing/food insecurity |
| 2 | Low | Stable housing, but limited financial or insurance access; high out-of-pocket concern |
| 3 | Moderate | Working class with basic healthcare access, but cost-sensitive |
| 4 | High | Professionally employed, insured, relatively unconcerned about healthcare affordability |
| 5 | Very High | Affluent, well-insured, minimal stress about medical costs or system navigation |

**h8: Previous Healthcare Experience**

|  |  |  |
| --- | --- | --- |
| Value | Experience Level | Description |
| 1 | None | First-time hospital patient; no history of medical decision-making |
| 2 | Minimal | Occasional doctor visits; rare or no major procedures |
| 3 | Moderate | Some experience with outpatient procedures, previous consents |
| 4 | High | Multiple hospitalizations, familiar with medical forms and language |
| 5 | Very High | Chronic patient, caregiver, or healthcare worker — very comfortable with consent and care processes |

**h9: Cognitive/Mental Health**

|  |  |  |
| --- | --- | --- |
| Value | Cognitive/Mental State | Description |
| 1 | Severely Impaired | Unconscious, highly sedated, delirious, or severe mental illness — no capacity |
| 2 | Impaired | Confused, anxious, overwhelmed, or emotionally unstable — low capacity |
| 3 | Fluctuating / Mixed | Alternating between clarity and distress (e.g., post-op recovery, panic) |
| 4 | Clear but Stressed | Cognitively able but mentally fatigued, worried, or emotionally affected |
| 5 | Stable and Clear | Fully alert, calm, and capable of processing complex information and decisions |

**f6: Perceived Redundancy**

|  |  |  |
| --- | --- | --- |
| Value | Redundancy Level | Description |
| 1 | None | Consent is clearly necessary, relevant, and well-timed |
| 2 | Low | Slight repetition, but still understandable (e.g., confirmatory consent) |
| 3 | Moderate | Patient notices repetition or vague purpose but still cooperates |
| 4 | High | Feels like a repeat or unnecessary — may trigger questioning |
| 5 | Very High | Patient is frustrated, sees consent as bureaucratic, and may disengage |

**f7: Environmental Context**

|  |  |  |
| --- | --- | --- |
| Value | Environmental Stress Level | Description |
| 1–2 | Very Calm | Quiet room, no time pressure, fully attended conversation |
| 3–4 | Low Stress | Mild noise or distractions, relatively controlled setting |
| 5–6 | Moderate | Busy or semi-private setting with occasional interruptions |
| 7–8 | High Stress | ER/ward setting, noise, rushed, multitasking staff |
| 9–10 | Very High | ICU, alarms, distress, emotional crowding, urgent cases |

**f8: Communication Mode/Quality**

|  |  |  |
| --- | --- | --- |
| Value | Communication Quality | Description |
| 1–2 | Very Poor | Rushed, confusing, full of jargon; no patient engagement |
| 3–4 | Poor | Vague or incomplete; patient unsure but signs anyway |
| 5–6 | Adequate | Basic explanation, limited interaction; patient somewhat understands |
| 7–8 | Good | Clear and respectful discussion; most questions answered |
| 9–10 | Excellent | Thorough, compassionate, patient-centered, with full understanding and trust |

**f9: Consent Granularity**

|  |  |  |  |
| --- | --- | --- | --- |
| Value | Granularity Level | Description | Example Context |
| 1 | Very Low | One single, broad consent | Admission form, general agreement |
| 2 | Low | One main item with a minor sub-consent | Admission + basic diagnostics |
| 3 | Moderate | 2–3 distinct items within the same consent | Diagnostic test + contrast dye + data sharing |
| 4 | High | Several modules with separate decisions | Surgery + anaesthesia + ICU + DNR |
| 5 | Very High | Highly fragmented; many consents over short period | Full surgical workflow with separate forms for every step (e.g., blood use, imaging, research participation) |

**f10: Cumulative Consent Load**

|  |  |  |
| --- | --- | --- |
| Value | Cumulative Load Level | Description |
| 1–2 | Very Low | First consent or very early stage; no prior stress |
| 3–4 | Low | Minimal prior consents; manageable mental burden |
| 5–6 | Moderate | Some buildup from earlier consents or stress |
| 7–8 | High | Multiple prior decisions or stressful events |
| 9–10 | Very High | Consent fatigue is pronounced; mental capacity may be waning |