Below is the instantiated safety case pattern for a Generic Patient-Controlled Analgesia (GPCA) system safety case. I've instantiated the placeholders and removed the additional decorators for the assurance case pattern.

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- \*\*Goal (G1, Operational safety is verified in GPCA system)\*\*

- \*\*Strategy (S1, Argument over the satisfaction of all specs over GPCA system)\*\*

- \*\*Context (C1, All specs are given by GPCA system.allInstances())\*\*

- \*\*Goal (G2, All operational hazards are mitigated)\*\*

- \*\*Strategy (S2, Argument over reliability in all suitable levels of GPCA system)\*\*

- \*\*Context (C2, Operational hazards are given by GPCA system.allInstances())\*\*

- \*\*Strategy (S3, Argument over operational hazards)\*\*

- \*\*Context (C2, Operational hazards are given by GPCA system.allInstances())\*\*

- \*\*Multiples [Goals] for operational hazards:\*\*

- \*\*Goal (G3, Overdose hazard is mitigated)\*\*

- \*\*Strategy (S4, Argument over the applied scenarios of overdose hazard)\*\*

- \*\*Context (C3, All related scenarios are given by overdose hazard)\*\*

- \*\*Multiples [Goals] for scenarios:\*\*

- \*\*Goal (G4, Overdose hazard is mitigated under failure to detect patient condition scenario)\*\*

- \*\*Strategy (S5, Argument over all specs related to failure to detect patient condition scenario)\*\*

- \*\*Context (C4, All related specs are given by failure to detect patient condition scenario.spec.allinstances())\*\*

- \*\*Multiples [Goals] for specs:\*\*

- \*\*Goal (G5, Sensor spec is appropriate for failure to detect patient condition scenario)\*\*

- \*\*Strategy (S6, Argument the appropriateness of Sensor spec over properties)\*\*

- \*\*Context (C5, Properties are given by Sensor spec.property.allinstances())\*\*

- \*\*Multiples [Goals] for properties:\*\*

- \*\*Goal (G6, Reliability property is appropriate for Sensor spec)\*\*

- \*\*Strategy (S7, Argument over the source of the Reliability property definition)\*\*

- \*\*Context (C6, Source is given by Reliability property.source)\*\*

- \*\*Goal (G7, Source is appropriate and trustworthy)\*\*

- \*\*Solution (Sn1, Source document)\*\*

- \*\*Goal (G8, Reliability property definition is sufficient)\*\*

- \*\*Solution (Sn2, Property assessment report)\*\*