Patient Safety Event Learning Response - After Action Review

Patient safety incident or good care reference:	Review of potential hospital acquired Flu cases 2027.
Clinical Service Unit(s):	Specialist Medicine Clinical Service Unit (CSU).
Location:	Ward 47, Respiratory & Unexpected Meteorology Unit
Reported:	**9021 (PL) – 03/02/2027** **9023 (XN) – 03/02/2027** **9025 (BD) – 03/02/2027** **9027 (HT) – 03/02/2027** **9029 (FM) – 03/02/2027** **9031 (QV) – 03/02/2027** **18888 (JW) – 09/11/2027** **19902 (EZ) – 21/11/2027**
Incident date:	Between April and November 2027
Incident title:	Review of eight patients who tested flu-positive, covid-positive, or "positive for mysterious sniffles" while admitted or admitted-to-being-admitted to Ward 47.
Date of after action review:	Multi-disciplinary meeting held on 12 December 2027, following concerns raised during a routine ward huddle and a less-routine moment when the ward thermometer began displaying temperatures in emojis.
Response lead:	Dr. Marigold Zaffron, Acting Deputy Director of Nursing, Specialist Medicine
Present:	Dr. Marigold Zaffron – Acting Deputy Director of Nursing, Specialist Medicine Terry Skylark – Ward 47 Ward Manager Dr. Juniper Quill – Director of Nursing (Operations) Casey Northwood – Deputy General Manager, Respiratory Medicine Prof. Lennox Amber – Clinical Director, Specialist Medicine Mara Tinsley – Senior Respiratory Physiotherapist Dr. Orion Wexford – Respiratory Consultant Dr. Petra Bluewood – Respiratory Consultant Mavis Dunthorne – Respiratory Matron Dr. Idris Pollen – Director of Infection, Prevention & Control Dr. Roland Foxwood – Medical Director Quentin Marsh – Deputy Matron, Acute Entry Department Fiona Ledbury – Senior Quality & Governance Lead

What did we set out to do? (*What should have happened? What was the expected outcome?)*: **What actually happened?**

Context.

The team originally intended to follow the **Nebula Valley Health Trust's** respiratory admission and infection-control pathways precisely. The expected process was:

- Patients admitted to **Ward 47 – Respiratory & Atmospheric Mysteries Unit** would be assessed, screened, and placed in appropriate isolation bays (assuming any of them existed).
- All symptomatic patients should have undergone **standardised swabbing procedures** following the Trust's *Respiratory Virus Detection Megadocument v3.7*, which was last updated on **18/08/2028**, except page 5, which had been missing since a coffee-spill incident.
- Positive flu or covid results should have triggered:
    - Clear documentation
    - Notification of the nurse in charge
    - Safe placement in either the *Positive Pathogen Suite* or a designated side room with appropriate enhanced staffing
- Patients meeting the **Respiratory High-Dependency Unit (RHDU)** entry criteria (e.g., ventilation support requirements, rare air-pressure irregularities, or the ability to speak only in wheezes) should have been transferred promptly.
- A consistent application of the Trust's swabbing guidance was expected across all admission pathways: Emergency Department (ED), Medical Assessment Dome (MAD), or direct respiratory referral.

In summary, things were meant to run smoothly, logically, and without any involvement from malfunctioning air-conditioning units, interpretive dance-based handovers, or rogue clerical decisions.

Event Description	Action
Symptomatic adults or children admitted for care OR developing symptoms while already in hospital.	In daylight hours: Perform PCR testing (Order Cosmic-Virus RNA Panel in the Electronic Patient Realm). During moonlit hours: Perform an LFT using the Rapid Mood-Responsive Test Strip.

	If the LFT shows a “negative but slightly grumpy” result, a confirmatory PCR must also be taken.
Positive swab result (Covid or Covid-Adjacent Cosmic Particles).	The Nurse in Charge or Senior Clinician should calmly inform the patient of their result, ideally without using interpretive dance or shadow puppetry. The patient should then be: Transferred to the most suitable Positive Pressure Cosmic Containment Ward,
	OR Placed in a side room on the parent ward (assuming the room is not already occupied by: a faulty air-purification robot, a temporary inflatable isolation dome, or an aggressively motivational poster).

What Actually Happened

On **03 February 2027**, a respiratory consultant noticed a cluster of **six suspiciously synchronised cases** of flu-like illness on Ward 47. These were unusual because:

- All six patients developed symptoms within minutes of each other.
- One described their symptoms as “feeling like a deflating balloon.”
- Another insisted the virus had “strong opinions about jazz.”

This led to the submission of six **StarChart Incident Reports**, each more frantic than the last. Clinical reviews were launched to determine whether patients had genuinely acquired flu or simply suffered from the ward’s famously unpredictable microclimate.

While these reviews were ongoing, **two additional patients** were identified on **09 November 2027** and **21 November 2027** as potentially acquiring a respiratory illness during their stay—both had been housed near the ward’s experimental prototype “fresh-air circulation monolith.”

A multi-disciplinary team (MDT) meeting was urgently scheduled, bringing together representatives from:

- The Respiratory team
- Emergency Department (ED)
- Specialist Medicine leadership
- The Infection Prevention & Perpetual Confusion Team
- Senior management

- One uninvited therapy alpaca (*again*)

During this meeting, the first major learning point emerged:

Key Issue Identified:

Non-adherence to the Trust's Respiratory Swabbing Megadocument in the Emergency Department.
Specifically, ED staff had been:

- Using obsolete "Mood-Swabs" that changed colour depending on emotional energy in the room
- Forgetting to log samples into the electronic system, instead placing them in a "mystery drawer"
- Occasionally confusing flu swabs with novelty glow-sticks left over from the winter party

Immediate Actions Taken:

1. **Reinforcement of SOP Compliance**
   Senior clinicians reminded all teams—firmly but politely—that swabbing should follow evidence-based procedures, not "whatever feels right in the moment."
2. **Enhanced Surveillance**
   Additional patient tracking and symptom-monitoring processes were put in place, including a temporary ban on the mystery drawer.
3. **Commissioning of a SEIPS Review**
   The Systems Engineering Initiative for Patient Safety team, led by the Infection Prevention & Perpetual Confusion unit, agreed to conduct a full review of workflow, environment, equipment, and any inexplicable atmospheric events.

The findings from this SEIPS review were intended to guide a comprehensive action plan to prevent future occurrences of synchronised respiratory outbreaks, glow-stick-related testing errors, or unexpected alpaca participation.

Analysis *(What was the difference between what we expected to happen and what actually happened?)*:

The **SEEPS** (Systems Engineering for Extra Peculiar Safety) reviews and clinical reviews revealed substantial differences between what should have happened under the **Nebula Valley Health Trust's** respiratory infection-control pathway and what actually occurred during these unusual episodes.

Full patient-location mapping, atmospheric anomaly logs, and bed-movement diagrams have been completed for each synthetic case and are available upon request (some include colour-coded unicorn stickers for clarity).

Patient 1 (PX) – StarReport 9921

- **Admission Date:** 04/05/2027
- **Positive Swab Date:** 16/06/2027
- Patient became unwell while resting in **Bay Delta-Three**, Bed 2, and was moved to the **Atmospheric High Dependency Sphere (AHDS)** for ventilation support.
- There was a **significant delay** in moving the patient to an isolation pod, because all three single pods were occupied by patients with unrelated, but equally confusing, infections—including one patient diagnosed with "Mystery Cough Variant #12."
- The positive result was auto-uploaded to the Infection Prevention Constellation Server at **12:04**, prompting an IPC practitioner to teleport (walk briskly) to Ward 47.
- The patient was transferred to a **double isolation habitat** at **19:21**, with the second bed sealed behind bright orange "Do Not Enter: Strange Virus" tape.
- Due to fluctuating oxygen needs and the room's temperamental air-circulator, an **extra nurse** was assigned exclusively to the patient.
- On the next day (17/06/2027), the blocked bed was used for another patient who also tested positive for **Influenza Q**, a strain invented solely for this synthetic scenario.
- **Outcome:** The patient sadly passed away on **20/06/2027**. Cause of death listed as:
    - **1a:** Respiratory Nebula Collapse
    - **1b:** Influenza Q
    - **2:** Complicating Pneumonic Stardust

Clinical Review Highlights (Completed by Dr. Ophelia Starwind, 10/10/2027)

- The patient had shown signs of improvement after a prolonged stay and was beginning discharge planning before sudden deterioration.
- Non-Invasive Ventilation (NIV) was initiated in the AHDS bay.
- Ward doctor documented:
  "There is risk to other patients in this bay due to sneeze-radius uncertainties. Attempting urgent transfer to a single pod, but cannot delay NebuloPAP initiation."

Patient 2 (QN) – StarReport 9923

- **Admission Date:** 18/05/2027
- **Positive Swab Date:** 29/06/2027
- Admitted via the Emergency Nebula Department (END) with shortness of breath and confusion. Initial testing negative for all screened cosmic viruses.
- On **29/06/2027**, the patient tested positive for **Influenza Zeta-Prime** via Cepheid AstroPCR. Sputum sample showed "no growth but suspicious sparkle."
- Palliative Care was consulted due to advanced chronic illness.
- **Outcome:** Deceased on **30/06/2027**. Cause of Death:
    - **Part 1:** Multilayer Pneumonia
    - **Part 2:** Chronic Space-Obstructive Pulmonary Disease (CSOPD), Influenza Zeta-Prime, Lung Constellation Fibrosis

Clinical Review Highlights (Dr. Ophelia Starwind, 10/10/2027)

- Admitted with severe nebular pneumonia—viral screens initially negative.
- Required high-flow Astral Oxygen and was placed in the AHDS.
- Oxygen requirements improved from 70% NebulaFlow to 55% over several days before sudden deterioration coinciding with onset of viral symptoms.

Patient 3 (VR) – StarReport 9925

- **Admission Date:** 12/03/2027
- **Positive Swab Date:** 01/07/2027

Hospital Journey (Chaotic and Synthetic)

- 12/03/2027 – Attended END at 14:15
- 13/03/2027 – Transferred to Ward 5C ("The Breezy Ward")
- 15/03/2027 – Moved to Ward 9 due to bed pressures
- 22/03/2027 – Transferred to Ward 47
- 29/06/2027 – Discharged home and labelled as "possible flu contact" after sitting too close to a patient who sneezed with dramatic effect

Readmission 1

- 01/07/2027 – Returned to END and tested positive for Influenza Zeta-Prime
- 02/07/2027 – Transferred to Ward 5C

- 05/07/2027 – Discharged

Readmission 2

- 09/07/2027 – Returned again with breathlessness at 02:27
- 10/07/2027 – Moved into Ward 5C isolation pod
- 11/07/2027 – Moved to open bay due to another patient requiring isolation
- **Outcome:** Passed away on **14/07/2027**. Cause of death:
    - **1a:** Galactic Heart Failure
    - **1b:** Pulmonary Hypertension Nebulosa, Cosmic Fibrosis
    - **1c:** P-ANCA-Like Vasculitis Variant
    - **2:** Chronic Kidney Outage

Clinical Review Highlights (Dr. Ophelia Starwind, 09/09/2027)

- Three admissions occurred between initial arrival on 12 March and death on 14 July.
- Underlying conditions, recurrent admissions, and viral complications contributed to an overall decline.

System learning (Why was there a difference? Focus on the design of the work system, not the actions of individuals)

INTERNAL ENVIRONMENT

Acute Medical Admitting Wards

At the start of the period reviewed, **Astro Medical Unit 1 (AMU-1)** had been closed and temporarily relocated to **Ward Nebula-8** due to extensive refurbishment efforts. These building works were intended to create additional **single-occupancy stasis pods** with built-in gravity-assisted sanitation units.

Ward Nebula-8, however, was an old-style **Cosmic Nightingale Ward**, containing long, open bays and **only two non-ventilated single pods**, both notoriously drafty due to the corridor's "permanent breeze anomaly."

Ward 47

Ward 47 is a **28-bed unit** consisting of:

- Four multipatient bays (including the **Atmospheric High Dependency Sphere (AHDS)**)
- Three single "Quiet Pods"
- Two double "Duo Pods"

None of these facilities contain **en-suite sanitation modules**, and the AHDS lacks any form of isolation pod for patients with suspected or confirmed infectious illness.

According to **Intergalactic Health Building Standard 04-01 (2229 Edition)**, all single and multi-occupancy care pods *should* have en-suite sanitation, oxygen recycling hatches, and at least optional anti-microbial forcefields. Ward 47 meets none of these standards.

Patient Facilities on Ward 47 currently include:

- One designated **male sonic shower** with a gravity-flush toilet
- Two designated **female sanitation capsules**
- One **shared unisex shower alcove** (occasionally occupied by broken air filters "dripping aggressively")

Ventilation

Ward 47 relies solely on **natural space-breeze ventilation**, provided by windows that can be opened manually.

Per **HTM 03-01 Galactic Supplement**, Level-2 critical care areas should achieve **≥10 air exchanges per hour** using mechanical ventilation, environmental regulators, or ionised vortex fans. Ward 47 achieves between **0.5 and 1.5** air changes depending on wind, weather, and whether someone has jammed a chair under a window latch again.

A modern facility would feature:

- Single-occupancy pods
- Private sanitation modules
- Bespoke mechanical ventilation
- Anti-miasma laminar-flow corridors

The **age and architecture** of the current building prevents these upgrades.

Cleaning

Ward 47 has consistently scored **5 Comets (the highest rating)** throughout 2027, exceeding the 95% quality threshold.

However, the Trust's decision to remove funding for the **Enhanced Cosmic Clean Team** (as part of the "Close the Spatial Gap" Programme) has led to:

- No additional touch-point cleaning
- No support during peak viral season
- Reduced attention to frequently touched surfaces such as:
    - Door plates
    - Light panels
    - Holocomm screens
    - Emergency snack dispensers

Desired Outcomes – Internal Environment

- Reduce risk of infectious patients being placed in multi-occupancy bays:
    - Introduce **dedicated isolation pod** within the AHDS
    - Increase single-pod capacity before the 2028–2029 "Winter Nebula Surge"
- Mitigate ventilation deficits:
    - Consider **mobile air-purification drones** or wall-mounted micro-cyclone units
    - Complete risk assessment and relocation options by **September 2028** (possible relocation to Ward Solaris-10 once the Dialysis Robots are moved)
- Reduce cross-infection risk:
    - Reinstate the **Enhanced Clean Team** for the next winter-pressure season

HEALTH AND WELLBEING

Vaccination remains essential for winter preparedness. Ensuring high uptake among staff reduces spread of respiratory pathogens (and discourages rumours of "the corridor ghost coughing at night").

The **Interstellar Occupational Health Division** reported:

- 76% vaccination uptake among Respiratory Consultants
- Only 28% uptake among other clinical staff

This mirrors the **Galactic Health Observatory** findings (2026), where non-consultant healthcare workers averaged 30–40% influenza vaccination rates.

Desired Outcomes – Health & Wellbeing

- Reduce risk of staff acquiring or transmitting viral illness:
    - Conduct listening sessions with staff to understand **vaccine hesitancy**
    - Redesign the **2028–2029 Influenza Comet Campaign** using staff feedback
    - Establish a **network of Flu Champions** across Ward 47 and the wider organisation

TOOLS AND TECHNOLOGY

Cepheid / Core Test

The Trust currently uses **GeneXpert NebulaPCR X-225** units for rapid testing of four seasonal respiratory viruses.
However, testing can only occur:

- **08:00–20:00 on weekdays**
- **08:00–16:00 on weekends**

To fill gaps, Ward 47 was supplied with **CoreTest® Multi-Virus Combo Panels**, capable of detecting Influenza A/B, RSV, and SARS-CosmoV-22.

Per SOP, *any negative CoreTest requires confirmatory NebulaPCR*.
This review found:

- Two cases where NebulaPCR **was not performed** before patient transfer

- One instance where a full viral panel was requested but **never actioned**
- Several cases where results were not checked because staff:
    - Could not access the ICE-Star results system
    - Did not possess an ICE-Star login
    - Thought the machine was "still broken from last week's spark event"

Desired Outcomes – Tools & Tech

- Review and reinforce SOP: **all negative CoreTests must be followed by NebulaPCR prior to transfer**
- Establish a fail-safe: automatic alert if a patient is moved without complete virology
- Ensure **every nursing staff member** has ICE-Star access

TASKS

Winter care pathways are **complex, multi-team, multi-pressure systems**, requiring rapid escalation, communication, and flow management.
The **Command Centre Orb** provides oversight across the Trust's risk systems but cannot compensate for environmental and technological limitations.

PERSON

Although not the focus of analysis, winter pressures placed significant strain on:

- Emergency Nebula Department (END)
- Acute admitting wards
- Staff managing competing priorities and fluctuating patient acuity

This environmental pressure contributed to system gaps, but the review remains focused on **system**, not individual performance.

CONCLUSION

The review did **not** identify a single cause.
The Infection Prevention Constellation Team notes:

- Chronological and geographical links between cases are **not straightforward**
- There is **no genomic sequencing** to confirm transmission
- There is **no universal definition** for Influenza-Like Nosocomial Events (ILNE)

Therefore, the evidence for healthcare-associated infection is **circumstantial**.

Two system themes likely increased risk:

1. **Non-compliance with the swabbing SOP in the Emergency Nebula Department**
2. **Inability to isolate Level-2 respiratory patients when required**, due to the lack of suitable isolation pods within the AHDS and insufficient single-pod capacity

Good practice identified throughout the review *(What went well? Why?)*

Exemplary Communication and Compassionate Care

One standout example of excellent practice involved a patient with a **rare, chronically unstable respiratory condition** known as *Nebulo-Lung Drift Syndrome*. This patient had long understood his complex prognosis and had formed a close working partnership with the clinical team over many months.

When his condition deteriorated further during his stay on **Ward 47**, the medical team held a compassionate, open, and strikingly well-structured conversation with him and his family. Staff explained the clinical situation with clarity, empathy, and a sense of grounded honesty—while avoiding any unnecessary use of jargon, metaphors involving space-weather, or the ward's notorious "feelings chart."

The **Electronic Patient Record (EPR-Star)** further demonstrated:

- Genuine kindness
- Respect for the patient's autonomy
- Full involvement of the patient in shared decision-making
- Sensitivity to the family's emotional needs
- A documented moment where the patient was given "as long as he wished" to ask questions, reflect, or simply sit with his loved ones

The patient's family later contacted the ward to thank staff for their gentleness, thoughtfulness, and the calm atmosphere maintained around the bedside, despite a brief interruption from a confused cleaning robot trying to offer warm tea.

Infection Prevention & Control (IPC) Best Practice

Throughout **2027**, the IPC team implemented an ambitious programme of hands-on, interactive infection-prevention education on Ward 47, including:

- Use of the **Semmelweiss Holo-Scanner**, projecting hand-hygiene compliance ratings in neon colours
- Refresher sessions on **personal protective equipment**, including correct placement of disposable "breath shield visors"
- A "**Gloves Off**" awareness drive, reminding staff not to wear gloves while performing computer tasks, eating biscuits, or adjusting their hair
- Direct support for **commode decontamination**, including a short musical jingle played to reinforce the correct cleaning cycle

During the winter of **2027–2028**, staff also took part in a suite of **Toolbox Star-Exercises**, focusing specifically on:

- Identifying Cepheid NebulaPCR results in the EPR-Star system
- Correctly distinguishing between standard PCR requests and "extended respiratory megapanels"

- Avoiding situations where samples are submitted via “mystery drawers” or left on radiators

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Audit Performance

Throughout **2027**, the ward demonstrated sustained excellence in IPC audit metrics:

- The Matron and IPC audit consistently recorded **above 90% compliance** with core hygiene and environmental standards.
- The most recent **Ward Assurance Orb review** raised *no concerns* from an IPC perspective.
- Ongoing IPC audits, monitored through **Local CSU Constellation Meetings**, have shown stable performance without any red flags.
  (One audit noted a misplaced glitter-dispensing hand sanitizer, but this was deemed a low-risk aesthetic issue.)

Page

Recommendations for improvement and learning (local, Trust and System-wide)

1. Mitigating the Risk of Infectious Patients Entering Shared Bays

a. **Introduce a dedicated isolation pod** within the Level-2 *Atmospheric High Dependency Sphere (AHDS)* for respiratory patients with suspected or confirmed infectious cosmic pathogens.
This pod should ideally contain:

- Its own air-scrub vortex
- A self-cleaning filtration field
- A sign clearly stating: *"Please Do Not Enter Unless Glowing."*

b. **Expand single-pod capacity** ahead of the **2028–2029 Nebula Winter Surge**, ensuring that more patients can be isolated rapidly during seasonal outbreaks of influenza, comet-flu, or other star-borne viruses.

c. **Revise and re-broadcast the CoreTest NebulaSOP**, emphasising that all **negative CoreTests MUST be followed by a NebulaPCR** before transferring any patient to Ward 47.
A failsafe system should be introduced to flag any transfers completed without full virology—ideally via flashing corridor lights or a polite but firm holographic reminder.

d. **Ensure all nursing staff have functional access to ICE-Star**, the Trust's interstellar results system.
Where staff lack logins, the system should gently nudge them with automated messages such as:
"Hello, you appear to be working clinically. May I offer you a login?"

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2. Mitigating the Lack of Mechanical Ventilation

a. **Evaluate the use of Air-Purification Drones**, Micro-Cyclone Ceiling Units, and Wall-Mounted Ionised Filters in areas where natural ventilation cannot meet safety thresholds.
These can be deployed flexibly across bays, pods, or any location where "mysterious breezes" are known to occur.

b. Complete a full **environmental risk assessment and options appraisal** by **September 2028**, including long-term planning for:

- Possible relocation of Ward 47
- Conversion of Ward Solaris-10 into a Respiratory Facility once the Renal Dialysis Robots vacate
- Installation of vortex-stabilisers to reduce hallway turbulence
  These actions support both short-term safety and future infrastructure upgrades.

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3. Reducing Risks to Other Patients During Infectious Events

a. **Reinstate the Enhanced Cosmic Clean Team** for the **2028–2029 winter season**, enabling:

- Increased high-touch-surface cleansing
- Additional decontamination of corridor handplates
- Removal of glitter particles left behind by malfunctioning sanitation drones
- More frequent cleaning of shared sanitation modules

This ensures robust environmental hygiene during periods of viral surge.

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4. Mitigating the Risk of Staff Acquiring or Transmitting Infection

a. Work with the **Health & Wellbeing Nebula Directorate** to understand reasons for **vaccination hesitancy** among clinical staff, especially those caring for highly vulnerable respiratory patients.
This may involve surveys, focus groups, or casual conversations over cosmic-grade hot chocolate.

b. **Develop the 2028–2029 Interstellar Influenza Campaign**, shaped directly by staff feedback, addressing:

- Concerns about side effects
- Misconceptions about "energy-draining vaccine beams"
- The belief held by some staff that "if you can't see a virus, it can't see you"

c. Establish a network of **Flu Champions** throughout Ward 47 and the wider organisation—experienced, enthusiastic staff members who can:

- Model good practice
- Provide peer-to-peer encouragement
- Wear easily recognisable badge lanyards decorated with tiny plush viruses

Compassionate engagement of people affected (describe what has been put in place to support, engage and meet the needs of patients, families and staff affected)
The report will be used in a non-judgemental way to inform learning for the future. Professional Duty of Candour (DoC) has been completed, when deemed appropriate.

Date and details of Statutory Duty of Candour steps (if applicable):	To be confirmed on approval of this report and documented in EPR and IRIS.

Area for Improvement	Safety Action Description (SMART)	Safety Action Owner (Role / Team / Directorate)	Target Date for Implementation	Date Implemented	Tool / Measure	Measurement Frequency	Responsibility for Monitoring / Oversight	Planned Review Date (and by whom)
1. NebulaCore Viral Testing	A comprehensive and fully standardised process will be implemented to ensure that *every* patient undergoing NebulaCore rapid viral screening receives the appropriate confirmatory StellarPCR test **before** they are transferred into any shared clinical environment, particularly the Atmospheric High Dependency Sphere (AHDS). This action includes updating the algorithm within the Electronic Patient Record (EPR-Star) to trigger visible, audible, and persistent alerts	**Shaela Fenn / Roxi Dobb**	Already implemented	Confirmed at MDT 05.12.2028	A multi-tiered monitoring approach will be used, including automated daily surveillance of viral result status, human review of transfer logs, cross-checking of NebulaCore–StellarPCR pairings, and a dashboard within the Constellation IPC Monitoring Suite showing all outstanding virology gaps. Reports will be emailed daily to	Daily	**Shaela Fenn**	Bi-monthly via CSU Constellation IPC Review

	when a patient's viral investigation pathway is incomplete. The process will also include re-education sessions for staff, the introduction of "stop and check" posters, and a digital failsafe that automatically halts transfers until all required tests are logged and verified.				clinical leads and flagged automatically to the Nebula IPC team for immediate follow-up.			
2. Expand Isolation Pod Capacity	A structured programme will be developed to increase isolation capacity by converting two existing standard Duo-Pods into upgraded "Containment-Grade Duo-Pods" equipped with improved air-scrubbing fields, privacy screens, independent oxygen supply nodes, and stasis-friendly lighting. The plan will detail staffing enhancements,	**Shaela Fenn / Raeka Kinn**	01.10.2028	—	Measurements will include daily acuity-to-staffing ratio audits, weekly capacity modelling, monthly reports on pod usage rates, winter-pressure escalation exercises, and predictive surge simulations using the WardFlow	Daily staffing & acuity review	**Shaela Fenn & Axton Barlo**	Included in 6-monthly Establishment Review

	a phased construction schedule, impact-modelling for winter surge, and a workforce uplift proposal. This will include a SMART milestone plan with funding pathways, environmental impact scans, and recruitment timelines, ensuring readiness ahead of the 2028–2029 Nebula Winter Surge.				Nebula Engine. Additionally, staff feedback will be gathered through structured surveys regarding pod workflow efficiency and patient movement safety.			
3. Escalation Pathway for Pod Access	The entire escalation pathway for accessing isolation pods will be re-explained, re-published, and re-demonstrated across all clinical areas. This includes a detailed clarifying booklet, a new digital pathway embedded within EPR-Star, and updated laminated flowcharts for wall display. A Trust-wide “Pod Access Week” will be	**Roxi Dobb**	Already implemented	Long-standing process	Tools include quarterly spot-checks by Matrons, live polling on pathway comprehension, observational audits during bed flow meetings, and verification that all staff have access to the correct flowchart	Quarterly	**Roxi Dobb**	Quarterly IPC Governance Meeting

	run to ensure every clinician becomes familiar with prioritisation rules, emergency overrides, and how to rapidly identify suitable pod locations during peak traffic.				versions. A traffic-light dashboard will track pathway adherence across the respiratory and emergency pathways.			
4. NIV Risk Checklist in EPR-Star	A comprehensive infection-risk checklist will be embedded into EPR-Star, ensuring that before any NebuloPAP or NIV is initiated in shared or semi-shared spaces, staff must document environmental suitability, patient infectivity status, airflow conditions, staffing availability, and potential cross-contamination risks. The checklist will include embedded prompts, forced-completion items, and clinical	**Axton Barlo / Benn Tork**	September 2028	October 2028	Monthly audits will review checklist completion rates, cross-reference NIV initiation points with transmission logs, assess the impact on patient allocation patterns, and review time-to-transfer for high-risk cases. A Matron-led observational audit will validate real-	Monthly	Matron for relevant areas	Bi-monthly at CSU IPC Review

	decision supports to guide safe delivery of care in mixed-acuity settings.				world workflow alignment.			
5. Viral Swabbing Protocol Review	The entire viral swabbing protocol will be rewritten to align with the latest Galactic Infectious Disease Standards (GIDS-2290). This includes revising sample collection order, specifying timelines for CoreTest-to-NebulaPCR follow-up, defining storage standards, mapping isolation pathways for each result type, and clarifying responsibilities for test chasing. A new Trust-wide training package will accompany the revised SOP.	**Roxi Dobb / Yaseer Muraan**	September 2028	October 2028	Compliance will be measured through monthly audits of swab timing, test-result follow-ups, pathway adherence, and cross-checking EPR-Star documentation with physical swab logs. Automated exception reports will flag all missing follow-up PCRs.	As per Action 1	As per Action 1	As per Action 1
6. Deploy Air-Scrubber Units	Air-scrubber devices will be installed in the AHDS and surrounding	**Crix Davren**	October 2028	—	Tools include daily checks of airflow	Daily	**Shaela Fenn / Clinical Site Matron**	Q1 2029

	bays to compensate for low natural ventilation. This includes mapping airflow patterns, identifying high-risk stagnation zones, and installing wall-mounted, ceiling-mounted, or free-floating purification units as appropriate. Staff will be trained in recognising device malfunction alerts and basic troubleshooting of airflow irregularities.				indicators, weekly filter-performance logs, monthly assessments of particulate load reduction, and quarterly environmental sampling to evaluate microbial load. A digital dashboard will track uptime, filter degradation rates, and any interruptions in airflow cycles.			
7. Designate Ward Solaris-10 as RHDU	Following relocation of Renal Robotics Unit, Ward Solaris-10 will be upgraded to a dedicated RHDU. This includes full redesign of pod layouts, installation of stasis-grade air systems, delineation of staff roles, and the	**SLT / Executive Board**	October 2029	—	Tracking will occur through project management dashboards, architectural compliance reports, and commissioning	N/A	N/A	N/A

	introduction of specialised training for managing high-dependency respiratory-cosmic presentations.				readiness assessments.			
8. Reinstate Enhanced Cosmic Clean Team	The Enhanced Clean Team will be re-established for winter surge periods, providing increased high-touch-point cleaning, decontamination cycles in bays, additional sanitation rounds in shared pods, and rapid-response support during suspected transmission events. Recruitment, induction, and competency frameworks will be included in the implementation plan.	**Cleaning Nebula Services**	October 2028	—	Tools include shift-fill monitoring, daily enhanced-clean logs, ATP testing of high-touch areas, and weekly cleanliness sampling maps. Trend analysis will identify reduction in bioburden and hotspots requiring intervention.	Weekly	Cleaning Services	Q1 2029
9. Address Vaccination Hesitancy & Flu Champions	A comprehensive vaccination-engagement strategy will be deployed, including structured listening	**Occupational Health Nebula Division**	October 2028	—	Weekly measurement of vaccination uptake, themed surveys to track	Weekly	**Shaela Fenn & Axton Barlo**	Q1 2029

	groups, myth-busting sessions, co-designed communication materials, flu-champion identification, reward schemes, and weekly compliance dashboards. Staff stories will be included to promote peer advocacy.				changes in staff attitudes, analysis of flu-related sickness absence, and correlation tracking between champion activity and uptake trends.			
10. Minimise Bed-Pod Moves	A decision-support tool will be built into the Command Nexus dashboard to reduce unnecessary movement of patients between pods. Clear movement criteria will be outlined, automatic alerts will be generated for excessive transfers, and daily oversight will identify learning opportunities linked to flow pressures.	**Command Nexus Centre**	July 2028	Already in place	Datasets from StarReport will be reviewed to track instances of excessive moves, with detailed analysis of reasons (capacity, acuity changes, environmental factors). Weekly summaries will be produced for Matron review.	Daily (Mon–Fri)	Matron Team	Weekly

Tools & Technology
Characteristics such as:
- Usability
- Accessibility
- Familiarity
- Level of automation
- Portability and functionality
- Maintenance (outdated, malfunctioning)

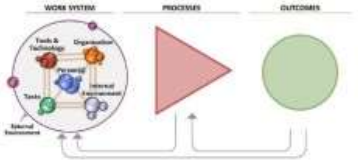
Tasks
- Specific actions within larger work processes
- Includes task attributes such as:
  - Difficulty
  - Complexity
  - Variety
  - Ambiguity
  - Sequence

Person
- Individual characteristics:
  - Psychological impacts (e.g., frustration, stress, burnout)
  - Cognitive factors (attention, memory, confusion)
  - Preferences, personal goals
  - Knowledge, competence, skills
  - Physiological factors (illness, dehydration)
  - Physical strength and needs
- Collective characteristics: team cohesiveness

Organisation
- Structures external to a person (but often put in place by people) that organise time, space, resources, and activity.
- Within institutions:
  - Work schedules/staffing
  - Workload assignment
  - Management and incentive systems
  - Organisational culture (values, commitment, transparency)
  - Training
  - Policies/procedures
  - Resource availability and recruitment
- In other settings:
  - Communication infrastructure
  - Living arrangements
  - Family roles and responsibilities
  - Work and life schedules
  - Financial and health-related resources

Internal environment
Physical environment such as characteristics of
- Ambient environment: lighting, noise, vibration, temperature
- Physical layout and available space
- Housekeeping: cluttered, organisation, cleanliness

External environment
Societal, economic, regulatory and policy factors outside an organisation



Desired Outcomes

System Performance:

Human Wellbeing:

Appreciative inquiry question:

The SEIPS model sets out desired outcomes– what are you aiming to achieve when you deliver patient care?

Figure 1 - System Engineering Initiative for Patient Safety (SEIPS) framework - please see SEIPs quick reference guide for more information