Introducing the "FlightPath" to Health Model

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The journey of a plane—from takeoff to landing provides a powerful and relatable metaphor for understanding and managing cardio-renalmetabolic (CaRMe) diseases. In this model, every phase of air travel corresponds to a stage in the treatment, prevention, and management strategy for these interlinked conditions. Here is how the analogy unfolds.

PRE-FLIGHT: RISK ASSESSMENT AND PREPARATION

Airport Check-In and Boarding Pass

Just as passengers check-in and receive boarding passes, patients undergo initial screening where risk factors (blood pressure, estimated glomerular filtration rate [eGFR], glycated hemoglobin [HbA1c], body mass index [BMI], etc.) are assessed.

Flight Plan Preparation

The clinical team develops a personalized "flight plan" based on the patient's CaReMe risk profile, establishing baseline metrics and outlining tailored interventions.

Dos

- **Comprehensive evaluation:** Complete baseline investigations and risk stratification.
- **Patient education:** Explain the journey ahead, including the importance of lifestyle changes and medication adherence.

Don'ts

- **Skipping screenings:** Missing early assessments can derail the entire journey.
- **Underestimating risks:** Failing to identify high-risk patients leads to insufficient planning.

TAKEOFF: INITIATION OF TREATMENT

Engine Start and Ascension

Like a plane's engines powering up and taking off, this stage marks the initiation of treatment strategies. Evidence-based therapies are introduced to stabilize metabolic, cardiovascular, and renal functions.

Crew Briefing

The health care team (doctors, nurses, specialists) coordinates to ensure that all aspects of the patient's health are addressed; much like a flight crew ensures safety and smooth takeoff.

Dos

- **Prompt intervention:** Initiate therapy early to stabilize the patient's condition.
- **Clear communication:** Ensure the patient understands the treatment plan and potential side effects.

Don'ts

- **Delay therapy:** Procrastination can lead to complications, similar to a delayed takeoff.
- **Isolated treatment decisions:** Avoid siloed approaches; coordinated care is crucial.

CRUISE PHASE: MAINTENANCE AND MONITORING

Stable Altitude and Smooth Flight

Once the plane reaches cruising altitude, the journey becomes one of steady progress.

For patients, this is the maintenance phase, where regular monitoring, lifestyle modifications, and medication adherence are key.

In-Flight Services and Adjustments

Just as flight attendants monitor comfort and safety, continuous monitoring (regular follow-ups, lab tests, and patient feedback) ensures the patient remains stable. Adjustments are made as needed—akin to making minor course corrections during flight.

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BRIEF COMMUNICATION

Dos

- **Regular check-ups:** Schedule follow-ups and monitor key parameters.
- Active management: Adapt treatment strategies in response to changes.

Don'ts

- **Neglect monitoring:** Infrequent assessments can miss early signs of deterioration.
- **Complacency:** Even if the patient is stable, proactive management is essential.

TURBULENCE: MANAGING COMPLICATIONS AND EMERGENCIES

Unexpected Weather and Turbulence

Mid-flight turbulence represents periods of acute complications or unexpected changes in the patient's condition. Quick, decisive action is necessary to navigate these challenges safely.

Emergency Protocols

Just as pilots follow emergency protocols, clinicians should have contingency plans (e.g., medication adjustments, specialist referrals) to address any deterioration promptly.

Dos

- **Rapid response:** Act swiftly when complications arise.
- Multidisciplinary collaboration: Engage specialists to manage severe issues.

Don'ts

- **Overlook warning signs:** Early indicators of worsening condition must be addressed immediately.
- **Delay escalation:** Postponing necessary interventions can compromise patient safety.

LANDING: ACHIEVING TREATMENT GOALS AND TRANSITIONING TO MAINTENANCE

Approach and Landing

As the plane descends and lands safely, this phase represents the successful attainment of treatment goals. The patient's condition is stabilized, and a transition is made from intensive intervention to long-term maintenance.

Post-Landing Procedures

Similar to disembarking and post-flight debriefs, followup care, patient education on maintaining improvements, and lifestyle adjustments are emphasized.

Dos

- Celebrate milestones: Acknowledge the progress and reinforce positive changes.
- **Plan for long-term health:** Establish a sustainable plan to maintain gains.

Don'ts

- Abrupt changes: Avoid sudden discontinuation of therapy; transition should be gradual.
- **Neglect follow-up:** Continued monitoring post-treatment is essential to prevent relapse.

THE CREW AND PASSENGERS: MULTIDISCIPLINARY TEAM AND PATIENT EMPOWERMENT

The Flight Crew

This includes endocrinologists, cardiologists, nephrologists, and allied health professionals, all working together to ensure a safe journey. Their coordinated efforts are akin to the collaboration required among pilots, co-pilots, and cabin crew.

The Passengers

Patients are the passengers whose safety and comfort are paramount. Empowering patients with knowledge and involving them in decision-making enhances adherence and satisfaction.

CONCLUSION

The FlightPath to Health Model provides a dynamic and engaging way to conceptualize the entire journey of managing CaReMe diseases. By mapping each phase of a flight to specific stages in patient care from pre-assessment to post-treatment follow-up—this model not only simplifies complex clinical pathways but also reinforces the importance of coordinated, multidisciplinary care.

SOURCE

 Tuttle KR, Brosius FC 3rd, Cavender MA, Fioretto P, Fowler KJ, Heerspink HJL, et al. SGLT2 inhibition for CKD and cardiovascular disease in type 2 diabetes: report of a scientific workshop sponsored by the National Kidney Foundation. Diabetes. 2021;70(1):1-16.

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