

# TWO THUMBS UP! A Review of the “PULMOSERYE: Pulmonary Patient Miniseries... Dead or Alive: The Saga of Mang Jose”- a Clerkship Learning Activity During the Pandemic



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## ABSTRACT

The World Health Organization declared Covid 19 a pandemic in March 2020, disrupting medical education and creating a significant void in the hospital rotation of the clinical clerks. Alternative methods of teaching and learning had to be instituted, and since face-to-face encounters were still not allowed, all these activities had to be online. While the various activities were able to challenge critical analysis and thinking, the Section on Pulmonary Medicine felt that the clerks would benefit most from activities that would most closely simulate an actual patient encounter. And so, the PulmoSerye was born: a miniseries that followed the patient from initial consultation in the emergency room resulting in admission, events that happened in the ward, formulation of the Master Problem List, progress notes, giving discharge orders, writing the discharge summary, and finally a follow up via Telemedicine. This is what the clerks would have experienced if they had been in hospital. Activities such as the Pulmoserye should be highly considered

as a viable option should clerkship hospital rotations once again be put on hold.

**Key words:** Covid 19, online learning, medical education, innovation, clinical clerkship

## BACKGROUND

Medical education was severely affected when Covid-19 was declared a global pandemic in March, 2020 [1]. The clinical clerks lost the opportunity to go to the hospital. Strict restrictions kept them from actual patient interaction, hindering their progress into becoming full-pledged healthcare workers and threatening a delay in their program. All the clerkship teaching and learning activities had to be done online [2,3], and many of these focused on role-playing, with the facilitators acting as patients, and the clerks eventually arriving at diagnoses and management.

The Section of Pulmonary and Critical Care Medicine believed that the clerks would most benefit from an activity that would best simulate what they would otherwise have experienced had they been in the hospital setting [4]. Thus, the Section created a “miniseries”, where the clerks would meet with five different Pulmonary facilitators, each one in charge of a particular event in a patient’s experience in the hospital.

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The clerks would be made to take care of a fictional 74-year-old COPD patient named Mr. Jose Silverio, or "Mang Jose", who arrives at the ER with shortness of breath. There were 5 sessions prepared, each session tackling a particular set of objectives, and representing a particular time during the patient's hospital stay. Clinical exposure from the Emergency room to the ward, performing procedures, facilitating discharge, and directing follow-up care and management are what the clerks were missing. And this is what the Pulmoserye was all about.

The five Pulmonary facilitators were assigned one session each.

## THE MINISERIES

### Episode 1: Mang Jose arrives at the ER.

This interactive session also used role-playing, which is still a very effective method [5] for the clerks to be able to practice gathering information from their "patient". A Pulmonary facilitator acted as Mang Jose.

This episode had the following objectives:

- Identify urgent from emergent conditions
- Perform a focused history
- Identify the essential parts of a focused exam
- Decide to admit or discharge a patient at the ER
- Craft an admitting order

#### Result

The clerks were able to recognize the need to probe for the origin of the shortness of breath, and the urgency with which Mang Jose needed to be admitted, given his clinical manifestations as well as the initial results of some of the procedures done. Screenshots of the actual charts were also used in this episode so that the clerks would be more familiar with the documents being used in the hospital setting. The episode ends with Mang Jose being diagnosed as having COPD in exacerbation, Community-Acquired Pneumonia Moderate risk, and pleural effusion. He likewise had co-morbid illnesses such as Diabetes and Hypertension. He was given admitting orders, and he was brought to the ward.

### Episode 2: Mang Jose worsens in the ward.

This session used the Pear Deck application, which encourages active learning [6], and which the clerks

enjoyed as they were able to interact anonymously. This was appreciated even more since this session touched on arterial blood gas interpretation, which many clerks were still unsure of, and lacked confidence in interpreting the results.

This episode had the following objectives:

- Interpret arterial blood gases
- Compute for the desired FiO<sub>2</sub>
- Correlate ABG results with the clinical manifestations
- Formulate management based on the clinical manifestations and the ABG results
- Familiarize oneself with the different routes for administering supplemental oxygen
- Monitor response to the recommended treatment

#### Result

The clerks were able to use the signs and symptoms of the patient as well as the ABG result to recommend the best therapeutic option. The clerks chose to administer oxygen via a high-flow nasal cannula.

### Episode 3: Mang Jose undergoes thoracentesis

This interactive session focused on a procedure commonly done in Pulmonary Medicine - thoracentesis. Since using videos have been proven to be of value in teaching skills [7], a video of the actual procedure was presented, as well as photos of various pleural fluid results.

This episode had the following objectives:

- Explain the signs and symptoms of the patient with the pathophysiology involved in pleural effusion
- Correlate the clinical manifestations with the chest x-ray results
- Differentiate transudative from exudative effusions
- Observe how thoracentesis is done
- Recommend laboratory requests on the pleural fluid
- Diagnose the etiology of the effusion based on the pleural fluid results

#### Result

The clerks were able to correlate all the clinical findings with the pathophysiology of pleural effusion, as well as the chest x-ray results. They were also able to understand how the procedure is done, as well as which laboratory requests will best identify

the etiology of the fluid. They were then able to recommend the best treatment options for Mang Jose.

#### **Episode 4: Ward work. The Master Problem list and Progress Notes are formulated, and Mang Jose is prepared for discharge.**

This was a highly interactive session, with the goal of enhancing learning [8,9] and focused on the responsibilities of the clerks while their patient is in the ward. This activity was vital for the clerks to understand that their role in patient care also included the different parts of the chart that they have to complete. Again, screenshots of the actual forms used in the hospital were included in the activity so that the "ward experience" would seem more realistic. There was also an additional focus on the Problem Oriented Medical Record/approach, as this is an effective method for recording the patient's medical issues [10].

This episode had the following objectives:

- Make progress notes using the S-O-A-P approach
- Formulate a Master Problem List
- Write discharge orders
- Prepare a discharge summary
- Complete the discharge medication sheet

#### **Result**

The clerks were able to familiarize themselves as to how to make progress notes using the Problem Oriented Approach. The clerks were guided in the process of using the to formulate a Master problem list. They were also able to understand how the Problem List evolves as more clinical information becomes available. Finally, the clerks were able to write their discharge summary using the clinical information in the physicians order sheet as well as the progress notes. They were then able to write discharge orders and fill up the discharge medication sheet.

#### **Episode 5: Follow up with Mang Jose via teleconsultation**

This interactive session starts with a brief review of the course in the ward of Mang Jose, as well as a review of his discharge documents, Mang Jose is then advised to follow up via telemedicine, which has played an even more significant role in patient care

during the pandemic [11]. Role-playing was again utilized, with one facilitator using a phone app to make himself age so that he could represent Mang Jose, and the other facilitator encouraging the clerks to interview Mang Jose via Telemedicine. Different apps which could aid both patient and physician in the teleconsult were also presented.

This episode had the following objectives:

- Utilize the teleconsults for patient follow up
- Confirm patient adherence to discharge plans
- Recognize the need for additional tests
- Plan for subsequent follow-ups
- Write prescriptions correctly

#### **Results**

The clerks were able to observe how Telemedicine works, as well as some of the limitations that may be encountered since the consultation has to be done virtually. They were introduced to some online medical apps that are very helpful in the evaluation of the clinical status of the patient. They were able to take on the role of physicians, asking relevant questions to determine whether the patient was compliant, and has responded to the treatment. They were also taught to write medical prescriptions and recommend additional diagnostic tests that Mang Jose would need for future consultations.

#### **CONCLUSION**

Based on the reflections that the clerks were asked to submit after they went through the Pulmoserye, all of them felt that it was a great alternative to an actual face-to-face hospital rotation, as they were able to learn the different skills required from a clerk when attending a patient from admission to discharge, and even during the follow-up. The clerks were also very appreciative that aside from the clinical and critical reasoning that they had to apply, they were also introduced to the different forms used in the hospital, making this activity more "realistic". The clerks were also grateful that all the 5 episodes were very interactive, and carried out in a very encouraging atmosphere, where they were always guided to the correct answers.

The clerks agreed that the PulmoSerye was a very innovative, engaging, and creative series of episodes that gave them a good idea of what a face-to-face Medicine rotation would have been like. As

an exercise, it was an overwhelming success, and a viable alternative if there are ever any face-to-face interruptions again in the future.

The PulmoSerye indeed deserves a TWO THUMBS UP!

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Episode 5: Isaias A. Lanzona, MD

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