



# The Physician's Journey

## A single institution approach to addressing the needs of residents tackling OSCE based examination through preparation in CADENCE

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### Introduction

The Practical Assessment of Clinical Examination Skills (PACES) examination assesses a physician's bedside skills in a rigorous, objective and reproducible manner, fundamental to delivering high quality patient care (See Figure 1). Gaining entry into the Royal College of Physicians by passing this examination has been a challenge for many residents, especially since the pass rate for all candidates world-wide was less than 50% in 2018.

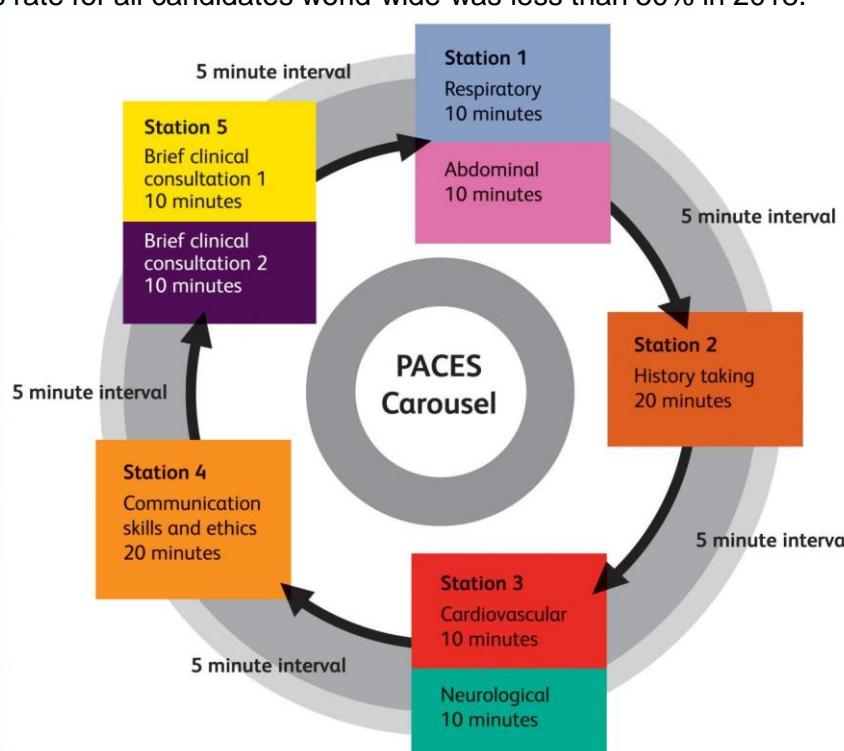


Figure 1: Format of the PACES Examination (Source: MRCP UK)

### The Challenge

Although residents were already assigned into groups within an informal study-buddy programme, "CADENCE", there was limited organisation in the course of exam preparation, and residents in CADENCE groups were largely left to their own devices.

To better understand the challenges faced by Internal Medicine residents preparing for PACES examination. We conducted a needs analysis, and found that residents had:

1. Limited access to training resources
2. Experienced difficulties aligning their schedules with their groupmates and tutors
3. Were not training in realistic PACES exam conditions

### The CADENCE Solution

CADENCE was developed in 2018 and provided a one-stop online resource library, peer and faculty led tutorials, and just-in-time simulated examinations. We aimed to provide broader and more realistic training for the PACES examination which could fit into the candidates busy hospital schedules.

#### 1. Online Resource Library

The online resource library (see Figure 2) served as a electronic repository of notes for the PACES exam, with examination notes and textbooks accumulated from previous batches of residents. The library also encompasses a collection of mock PACES station scenarios that residents write. Residents are encouraged to contribute notes and scenarios that they have written thereby sustaining and updating the library.

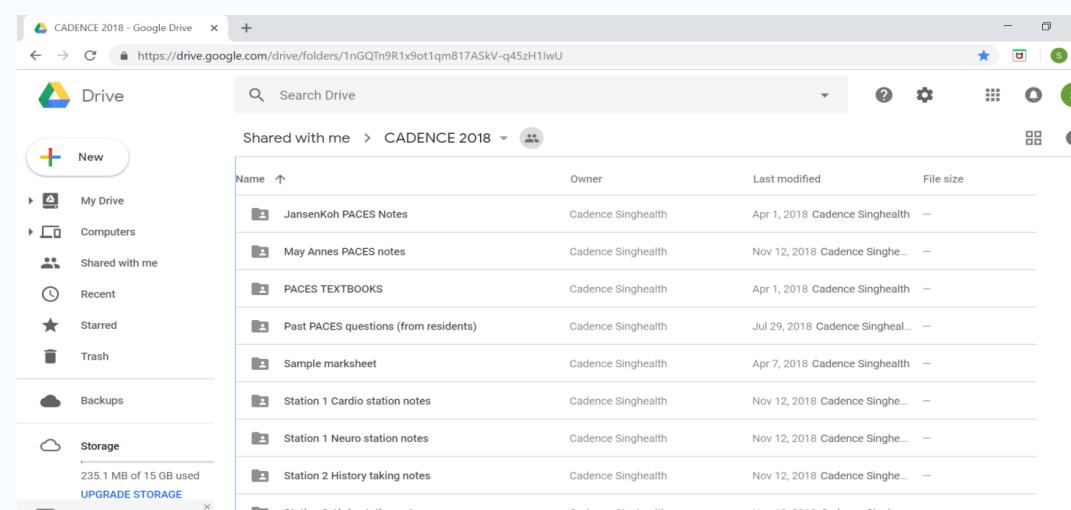


Figure 2: Screenshot of online resource library for CADENCE

### 2. Faculty and Peer Led Tutorials

Faculty led tutorials were carried out in large-group formats with experienced tutors imparting relevant subject based knowledge and examination skills.

Peer led tutorials (See Picture 1) were conducted which enabled residents who passed the PACES exam to take the candidates through simulated scenarios and provide timely and individualised feedback on their performance.



Picture 1: Peer led session using simulated scenarios

### 3. Just-in-time Simulated Examinations

A structured preparatory course, the "CADENCE PLUS Programme" spanned over multiple sessions was introduced in a just-in-time manner which included:

1. Simulated PACES examination scenarios (see Figure 3), experienced tutors and realistic grading,
2. Simulated and actual patients,
3. Protected training time for PACES preparation.



Figure 3: Sample clinical scenarios of CADENCE PLUS

### Results

Residents who participated in the CADENCE PLUS programme in 2018 felt more confident in the PACES exam (see Figure 4), particularly in traditionally challenging stations of Communication skills and ethics (Station 4), and Brief clinical consultation (Station 5).

|  | Pre  | Post | P value (t-test) |
|--|------|------|------------------|
| How confident do you feel about the PACES examination?                               | 4.68 | 6.06 | 0.06             |
| How confident do you feel about the physical examination stations (station 1 and 3)? | 5.15 | 6.37 | 0.07             |
| How confident do you feel about the communication station (station 4)                | 6.05 | 7.12 | <b>0.05</b>      |
| How confident do you feel about the short case station (station 5)                   | 4.73 | 6.25 | <b>0.04</b>      |

Figure 4: Results of CADENCE PLUS survey

In Jun and Oct 2018 PACES examination, 83% (49/59) of the candidates who participated in the programme passed.

### Conclusion

CADENCE is a resident-initiated and resident-led programme implemented to assist our fellow SingHealth Internal Medicine Residents in passing this important milestone examination. Through this initiative, we also cultivated a culture of active teaching amongst the residents and the faculty, adding another dimension to the meaning of CADENCE.