SCENARIO OVERVIEW

In this serious game, students are tasked with interpreting the following cardiac rhythms:

- Normal Sinus
- Sinus Bradycardia
- Sinus Tachycardia
- Atrial Tachycardia
- Atrial Fibrillation
- Atrial Flutter
- Premature Ventricular Contraction (PVC)
- Premature Atrial Contraction (PAC)

INSTRUCTIONS

1. Present students with the printed Rhythm Interpretation Serious Game student handout.

2. In the ARIS platform, students scan the provided QR code to begin each game.
3. A tutorial begins each of the Rhythm Interpretation Serious Games to guide students through the rhythm interpretation process as follows: Step 1: Calculate the rate, Step 2: Determine regularity, Step 3: Assess the P waves, Step 4: Determine the PR interval, and Step 5: Determine the QRS duration. Note: students can skip the tutorial if desired.

4. For each cardiac rhythm, students are shown both a video and a six second ECG strip. Then, they are asked six questions. The first five questions are based on the Steps listed above. For the final question, students are asked to actually interpret the rhythm.

5. A full rationale screen is displayed after the last question for each rhythm and includes: an explanation of the pathophysiology, some common signs and symptoms, treatment options, and possible causes.

**LEARNING OBJECTIVES**

1. Accurately identify various heart rhythms

**CURRICULUM MAPPING**

This is a multidisciplinary game that can be mapped to any specific program competency that involves cardiac rhythm interpretation.

**SCORING**

1. Throughout each serious game, students earn “stars” for correct answers. Their goal is to collect all of the possible stars and become a “Star Rhythm Interpreter.”

2. At the end of each game, a “Star Score” screen is displayed on the iPad which shows both the number of stars earned and a statement stating how well they did. Scores and statements correspond to the following table:

<table>
<thead>
<tr>
<th>Total Stars Awarded</th>
<th>Accompanied iPad Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>Outstanding! You identified all of the cardiac rhythms correctly. Keep up the great work!</td>
</tr>
<tr>
<td>99-93%</td>
<td>Great job! You answered most of the questions about cardiac rhythms correctly.</td>
</tr>
<tr>
<td>92-85%</td>
<td>You did well, but we think you can do even better. Try interpreting the cardiac rhythms again.</td>
</tr>
</tbody>
</table>
84-80% Not bad, but your cardiac interpretation skills still need some work. Try interpreting the cardiac rhythms again.

79% or lower Try again! We know you can do better next time at interpreting cardiac rhythms.

3. As an option, a timestamp is also provided on the final “Star Score” screen. Students can take a screen shot of this and email it to their instructor as “evidence” that they completed this serious game successfully.

SURVEY

Print this page and provide to students.

Students, please complete a brief (2-3 minute) survey regarding your experience with this ARISE simulation. There are two options:

1. Use QR Code: Survey

2. Copy and paste the following survey link into your browser
ECG gif downloaded from Wikimedia Commons
REFERENCES


Asystole. (January 2018). Downloaded from https://en.wikipedia.org/wiki/Asystole

Atrial Fibrillation. (January 2018). Downloaded from https://en.wikipedia.org/wiki/Atrial_fibrillation

Atrial Flutter. (December 2017). Downloaded from https://en.wikipedia.org/wiki/Atrial_flutter#Management


Clinical Skills Education LLC. (2017). EKG Academy. Downloaded from https://ekg.academy/


First-degree Atrioventricular Block. (May 2017). Downloaded from https://en.wikipedia.org/wiki/First-degree_atrioventricular_block
Francis, J. (June 2012). What is the Treatment of Idioventricular Rhythm. Downloaded from https://cardiophile.org/what-is-the-treatment-of-idioventricular-rhythm/


Idioventricular Rhythm. (October 2017). Downloaded from https://en.wikipedia.org/wiki/Idioventricular_rhythm


Pozner, C. (December 2017). Advanced Cardiac Life Support (ACLS) in Adults. Downloaded from UptoDate at https://www-uptodate-com.proxy.cvtc.edu/contents/advanced-cardiac-life-support-acls-in-adults?search=ventricular%20fibrillation&source=search_result&selectedTitle=3~150&usage_type=default&display_rank=3

Premature Atrial Contraction. (September 2017). Downloaded from https://en.wikipedia.org/wiki/Premature_atrial_contraction

Premature Junctional Contraction. (May 2017). Downloaded from https://en.wikipedia.org/wiki/Premature_junctional_contraction
Premature Ventricular Contraction. (January 2018). Downloaded from
https://en.wikipedia.org/wiki/Premature_ventricular_contraction#Pathophysiology


block). Downloaded from UptoDate at https://www.uptodate.com/contents/second-
degree-atrioventricular-block-mobitz-type-i-wenckebach-
block?search=wenckebach&source=search_result&selectedTitle=1-32&usage_type=default&display_rank=1

Sauer, W. (December 2017). Second degree atrioventricular block: Mobitz type II. Downloaded
from UptoDate at https://www.uptodate.com/contents/second-degree-atrioventricular-
block-mobitz-type-
ii?search=second%20degree%20mobitz%20ii&source=search_result&selectedTitle=1-1
50&usage_type=default&display_rank=1

Second-degree Atroventricular block. (December 2017). Downloaded from

Sinus Tachycardia. (September 2017). Downloaded from
https://en.wikipedia.org/wiki/Sinus_tachycardia

Sinus Bradycardia. (May 2017). Downloaded from
https://en.wikipedia.org/wiki/Sinus Bradycardia

Supraventricular Tachycardia. (January 2018). Downloaded from

Torsades de Pointes. (January 2018). Downloaded from
https://en.wikipedia.org/wiki/Torsades_de_pointes
University of New Mexico. (January 2017). Basic Arrhythmia. Downloaded from
https://learningcentral.health.unm.edu/learning/user/onlineaccess/CE/bac_online/index.html

Ventricular Fibrillation. (January 2018). Downloaded from
https://en.wikipedia.org/wiki/Ventricular_fibrillation

Ventricular Tachycardia. (November 2017). Downloaded from
https://en.wikipedia.org/wiki/Ventricular_tachycardia


WebMD LLC. (2005-2018). Supraventricular Tachycardia. Downloaded from
https://www.webmd.com/heart-disease/tc/supraventricular-tachycardia-cause