



Description: Choose which member of the outbreak investigation team you are going to be as you race against time to solve the outbreak in your hospital. Was it *caused by Escherichia coli* with an NDM carbapenemase in the intensive care ward? Or *Klebsiella pneumoniae* with an OXA-48-like carbapenemase in oncology?

This fun and educational game is perfect for everyone from students to experienced outbreak control professionals. It introduces multiple concepts such as outlining some of the different professions that contribute to outbreak investigations, highlighting multiple types of bacteria that can cause healthcare-associated infections, and spotlighting the importance of antibiotic resistance.

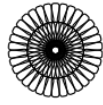
Players Infection preventionist Bioinformatician Microbiologist Epidemiologist Clinician Environmental Health	Bacteria cards <i>Klebsiella pneumoniae</i> <i>Escherichia coli</i> <i>Citrobacter freundii</i> <i>Serratia marcescens</i> <i>Enterobacter cloacae</i>
Carbapenemase cards KPC VIM NDM IMP OXA-48-like	Hospital ward cards Intensive Care Cardiology Emergency Pediatrics Dialysis Radiology Oncology Labor & Delivery

Game Information:

Number of players: 3-6 players

Average play time: 30-60 minutes (longer with more players). This can be shortened using the speed mode rule modification.

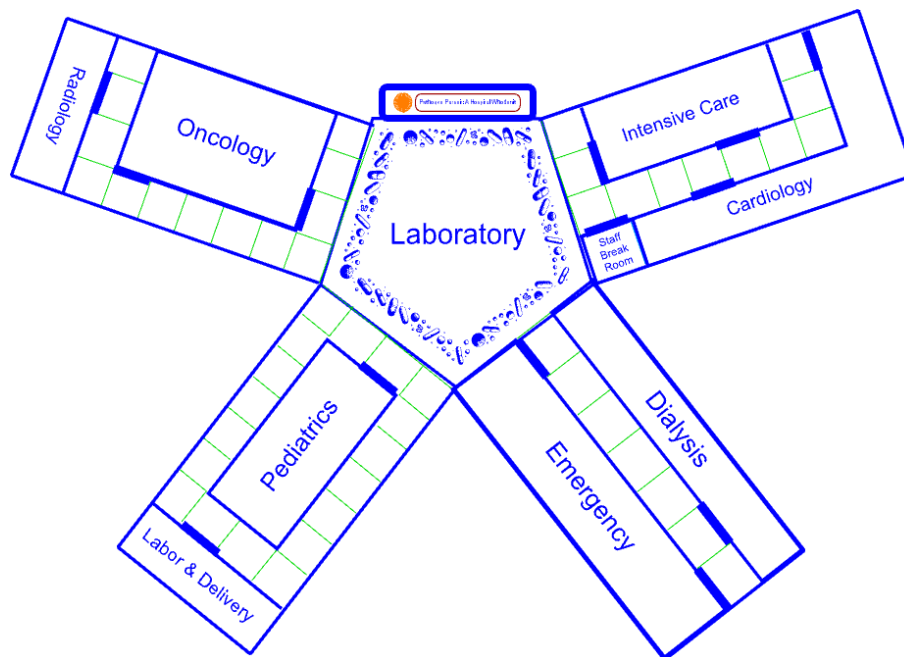
Age suggestion: 12 and up



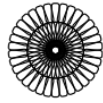
To learn more and print more score sheets, visit www.genomicepi.com/game

Setting up:

- Print the required game pieces on the thickest cardstock available (alternatively print on standard paper and glue to thick cardstock or lightweight cardboard)
 - Game board and tokens
 - Cards
 - Chart notes sheets
- Connect the 4 hospital wings to the central laboratory using clear tape.



- Sort the cards into categories (Hospital Ward, Bacteria, and Carbapenemase) and place one from each category face down in the large Petri dish on the board. Do not let anyone see these cards - this represents the solution to the outbreak.
- The player with the least amount of experience in infectious disease outbreak goes first, game play continues clockwise. If people have the same amount of experience (or lack of experience), then the youngest player goes first.
- The remaining cards are shuffled together and then dealt out to all players - the first player serves as the dealer. Everyone may not have the same number of cards - that's okay!
- Each player
 - Takes 3 telemedicine tokens



- Takes a notes sheet and outbreak notes security portfolio
- Chooses a character and places their character token in the laboratory

Turns:

- Movement
 - Each player starts their turn by rolling the die and moving up to the number of spaces rolled (you're not required to use all the moves).
 - The hallway around the laboratory is open - you can move any distance in the hallway using one move.
 - Telemedicine tokens can be used to move your token to any room at the start of your turn. You don't need to roll the die if you're using a telemedicine token. Tokens should be returned to the medium Petri dish when they're used.

Telemedicine token note
The only time you can use a telemedicine token at the *end* of a turn is if you would like to solve the outbreak. If you have a remaining token, you can use it to return to the laboratory and attempt to solve the outbreak. Keep this in mind when planning how you use your tokens!

Consultation: If your player piece is in a ward after moving, you can ask for a consultation with the other outbreak investigators.

- This is done by naming the room you are currently in, and then choosing one organism and carbapenemase. For example you might say "Does anyone have any information on whether there is an outbreak in the oncology ward caused by *Klebsiella pneumoniae* with a VIM carbapenemase").
 - The player to your right will review their hand, if they are holding any of the three named cards, they will confidentially show you *one* card. If they have none of the cards, continue around the table until one player is able to show a card. If no players can show a card, the turn ends.

Taking Notes:

Proper and thorough documentation is critical for any outbreak investigation. Data must be collected in a manner that is logical, consistent, and easily analyzed. To assist with this, each player receives an outbreak note sheet, as well as a confidentiality folder to keep their data safe from prying eyes.

You can devise your own method, but one notation is shown below, marking an "X" to indicate that a player holds that card, and a "-" to indicate they do not have that card. Make sure to pay attention to each turn - marking what cards a player *doesn't* have can be very useful information. As you rule out



cards, make sure to check the boxes along the top. Once there is only one option left in each category, you've solved the outbreak!

	Ruled out	Hospital wards								Bacteria					Carbapenemase				
		X	X	X	O	X	X	X	X	O	X	X	X	X	O	X	X	X	X
Player		Cardiology	Intensive Care	Emergency	Pediatrics	Dialysis	Radiology	Oncology	Labor & Delivery	<i>Klebsiella pneumoniae</i>	<i>Escherichia coli</i>	<i>Citrobacter freundii</i>	<i>Serratia marcescens</i>	<i>Enterobacter cloacae</i>	KPC	VIM	NDM	IMP	OXA-48-like
1. Myself		X	X								X	X							
2. Susie				X	-		X						X			X	X	-	
3. Julio						X	-	X	X	-				X			-	X	X
4.																			
5.																			
6.																			
Notes:																			

Example score sheet - the solution to the outbreak is Pediatric ward, *Klebsiella pneumoniae*, and KPC carbapenemase

Winning:

- When a player has deduced the three cards in the envelope, they must return to the laboratory and announce that they would like to solve the outbreak.
- Once a player has announced, they secretly look at the cards. If they are correct, they have won the game. If they are not correct they will not be able to win, but will still participate in the game by showing their cards when asked by other players. They should move their player token to the staff break room and are no longer allowed to roll or ask for consultations.

Speed Game:

- To speed up the game:
 - Activate telemedicine in the hospital, which allows all investigators to remain in the laboratory and conduct consultations remotely in any ward.
 - If there is an uneven number of cards when dealing, the extra cards can be placed face up instead of continuing to be distributed to the players. For example if there are 6 players, each player would get 2 cards and 3 cards would be placed face up.