Who gets the kidney

A renal care committee decision you have to defend

There are far more people waiting for a kidney than there are kidneys, and far more people who need dialysis than there are chairs and hours to give them. Somebody decides. Today that is you, and you have to write down the rule you used.

60 TO 75 MINUTES | ONE SITTING | WRITTEN WORK ONLY | VALUE ANNOUNCED WHEN THE PACK OPENS

WHAT THIS ITEM IS WORTH

The point value is announced when the pack opens, printed on the portal beside the item and written on the board. It is not printed here, because the value is set once and printing it in two places is how two different numbers end up in circulation.

What is fixed now is the **size**. This page tells you how long the work takes and what you have to produce. Read that first and decide whether you have the time before you start.

What you are doing

You are sitting on a renal care committee. Three patients need something you cannot give all three of them. You will write the criterion you would use to decide, defend it against the strongest objection you can find, and name honestly what your rule costs the person it turns down.

WHAT THIS ITEM COSTS YOU

HOW LONG	SITTINGS	WHAT YOU NEED FIRST	WHAT YOU HAND IN
60 to 75 min	One	This handout, and a device that opens the two MedlinePlus pages listed below.	One written position, roughly a page: your criterion, your evidence, your response to the objection, and the tradeoff you accept.

The science you need first

You cannot argue about kidneys without knowing what a kidney does. Read this before the scenario, because the argument turns on it.

WHAT THE KIDNEY DOES, AND WHAT FAILS WHEN IT FAILS

- **Filters blood.** The nephron filters plasma at the glomerulus, reabsorbs what the body still needs along the tubule, secretes wastes into the tubule, and concentrates what is left into urine.
- **Regulates electrolytes and fluid.** Sodium, potassium and water balance are set here, which is why kidney failure shows up as swelling and as dangerous potassium levels, not only as urine changes.
- **Sets blood pressure.** Through fluid volume and through the renin pathway.

- **Signals for red blood cells.** The kidney produces erythropoietin. This is why kidney failure causes anaemia, which surprises people who expect a kidney problem to stay a urine problem.

> **WHAT DIALYSIS DOES AND DOES NOT DO**
>
> Dialysis takes over the filtration job. It does not take over the hormone jobs, it does not run continuously the way a kidney does, and it costs a chair, a machine, a nurse and several hours per patient several times a week. A patient on dialysis is being kept alive, not restored. Hold both halves of that when you write.

Read these two before you decide

- **MedlinePlus: Dialysis.** medlineplus.gov/dialysis.html. Read it for what the treatment actually demands of a patient and of a clinic. That is the access half of your argument.
- **MedlinePlus: Kidney Transplantation.** medlineplus.gov/kidneytransplantation.html. Read it for how waiting lists and matching work. That is the allocation half.

The scenario

> **THREE PATIENTS, ONE TRANSPLANT SLOT AND ONE DIALYSIS OPENING**
>
> Every detail below is written for this exercise. No real patient is described.
>
> - **Patient A.** 19 years old. Kidney failure from a genetic condition diagnosed in childhood. Has been on the waiting list 8 months. Good tissue match. No other illness. Expected to live decades with a working transplant.
> - **Patient B.** 54 years old. Kidney failure from long-standing diabetes and high blood pressure. On the list 4 years. Moderate tissue match. Diabetes also affects the eyes and circulation, so the expected benefit is shorter. Currently the sickest of the three.
> - **Patient C.** 37 years old. Kidney failure after a severe infection. On the list 2 years. Good tissue match. Sole earner for a household of four, and lives 90 minutes from the nearest dialysis centre, so a dialysis slot here would mean three round trips a week.

The steps

1. **Read the two MedlinePlus pages.** Take three notes from each: one about what the treatment does to the body, one about what it costs in time or resources, and one about who it is hardest on.

   Done when: You have six notes written down before you look at the patients again.

2. **Write out four candidate criteria.** These are the rules a committee could use. Name each one and say in a sentence what it would decide here. Four common ones are **medical urgency** (sickest first), **expected years of benefit** (who gains the most life from it), **time on the waiting list** (first come, first served), and **tissue match quality** (best biological fit).

   Done when: Four criteria named, and for each one you have written which patient it selects.

3. **Notice where they disagree.** Two of those four criteria pick different patients here. Write one sentence saying which two conflict and why.

   Done when: You can point to a real conflict, not a hypothetical one.

4. **Choose your criterion and say why.** One sentence claiming which rule you would use, then two or three sentences of reasoning. Your reasoning has to use something from the reading, not only instinct.

   Done when: Your claim names one criterion, and your reasoning cites at least one fact about kidney function, dialysis, or transplant matching.

5. **Argue against yourself.** Write the single strongest objection to your rule. Not the weakest, the strongest. Then answer it in two or three sentences.

   Done when: The objection you wrote is one you actually find hard to answer.

6. **Name the cost.** Finish with one sentence naming exactly who your rule turns down and what that person loses. No rule here is free and the sentence has to say so.

   Done when: You have named a specific patient, A, B or C, and a specific loss.

Below is what a finished answer looks like in shape. Read it for the moves it makes, not for the position it takes. A student who argues the opposite criterion, with real evidence and an honestly named cost, earns exactly the same credit. The one thing you cannot do is skip the objection or the cost, because those two are where the reasoning is actually tested.

THE SHAPE OF A FINISHED ANSWER

> **Claim.** I would allocate the transplant on expected years of benefit.
>
> **Evidence.** A transplant restores hormone function that dialysis does not, including erythropoietin production, so the gain from a transplant is largest in a patient whose other systems can still use it.
>
> **Objection.** This rule systematically disadvantages older patients and patients whose kidney failure came from a condition that also damaged other organs, which is closer to punishing people for the disease they got.
>
> **Cost.** My rule turns down Patient B, who is the sickest person on this list and who has waited the longest, and it leaves that patient on dialysis indefinitely.

Where people get stuck

I want to say all three should get one.

So does everyone, and it is not an answer. The exercise exists because there is one slot. If you genuinely think the right response is to change the supply rather than choose, write that as your claim, and then still say who gets the one kidney that exists today.

My reasoning is just my opinion restated.

Test it: cross out every sentence that does not contain a fact about the kidney, dialysis, or matching. If nothing is left, go back to the reading. Reasoning has to connect the evidence to the claim, not repeat the claim more loudly.

I cannot find an objection to my own rule.

Take the patient your rule turns down and write their argument in first person. The objection is always there. It is just easier to see from the other chair.

Am I supposed to pick the answer Mr. Mendoza agrees with?

No. There is no key. Every one of the four criteria is used by real allocation systems somewhere, and every one of them is criticised. You are graded on the quality of the defence.

Words this item uses

Nephron

The filtering unit of the kidney. About a million per kidney. Filtration, reabsorption, secretion and concentration all happen along it.

Glomerular filtration

The first step, where pressure pushes fluid out of the blood into the start of the nephron.

Erythropoietin

A hormone the kidney makes that tells bone marrow to produce red blood cells. Its loss is why kidney failure causes anaemia.

Dialysis

A treatment that filters blood outside the body. It replaces filtration only, not the kidney's hormone work.

Tissue match

How closely a donor organ's surface markers resemble the recipient's. A closer match lowers the chance the immune system attacks the organ.

Allocation criterion

The stated rule a system uses to decide who receives a scarce treatment. Urgency, expected benefit, waiting time and match quality are four of them.

Tradeoff

What a decision costs. Naming it is not a weakness in your argument. Refusing to name it is.

How to submit

- **Where it goes.** The same place as everything else. Your class form on the portal, or handed to Mr. Mendoza in person. Extra credit does not need a different route.
- **What to hand in.** Your written pages. Photographs of handwritten pages are fine. A photograph you cannot read is not.
- **Put your name and period on every page and in every photograph filename.** Unlabelled work cannot be credited, and it is the most common way points get lost.
- **When.** Any day after the pack opens, up to the last week of the semester. There is no deadline inside that window and no penalty for going slowly.
- **Feedback.** You get it back with a note. If a piece is short of full credit you may fix the named thing and resubmit once.