

2027-04-23 · 80 minutes

Wk14 Exit ticket: Ventilator allocation ethics debate

Your goal: Debate how scarce ventilators should be allocated during a respiratory crisis.

One product: Written position on ventilator allocation, citing one ethical criterion and naming one genuine tradeoff in triage decisions.

Question: Which allocation criteria can you defend while acknowledging missing clinical evidence and a genuine tradeoff?

Start the work

Reference comparisons describe values in context; they do not identify a cause or prove cardiovascular health.

1. Read a short scenario on a ventilator shortage.
2. Form groups representing hospital triage teams.
3. List two ethical criteria for allocating ventilators.
4. Respond to one opposing group's criterion.
5. Write your position with one supporting reason.

If access is unavailable, save a dated practice response and tell the teacher. Ask for missing group-discussion, official-activity and tracker directions before doing that work.

Words you will use

ventilator

A machine that supports breathing by moving air into and out of the lungs.

ventilation

Movement of air into and out of the lungs.

respiratory failure

A condition in which breathing does not adequately support oxygen delivery or carbon dioxide removal.

gas exchange

Movement of oxygen and carbon dioxide between air in the lungs and blood.

allocation

Distribution of a limited resource.

scarcity

A situation in which available resources do not meet all stated requests or needs.

triage

Prioritizing care needs when decisions about urgency and resources must be made.

criterion

A stated rule used to compare options.

criteria

More than one criterion.

tradeoff

A benefit gained while another benefit is reduced or a burden remains.

prognosis

An estimate of a likely course or outcome, with uncertainty.

expected benefit

The help a treatment is estimated to provide, not a guaranteed result.

survival odds

A way of describing an estimated chance of survival; no individual estimate is supplied here.

near-term

Within a specified short time frame, rather than across a lifetime.

risk factor

A characteristic associated with a greater chance of an outcome in a studied context.

population

A group described by a source or study.

individualized assessment

Evaluation of the relevant facts for one person rather than assuming a group label decides the case.

evidence

Information used to support or challenge a factual claim.

ethical priority

A value-based choice about what should matter most.

value judgment

A statement about what ought to matter or be done.

uncertainty

A limit on what is known or can be concluded.

bias

A systematic unfairness or distortion in a judgment or estimate.

equal worth

The ethical position that people do not have different human value because of status or personal characteristics.

disability

A physical or mental impairment that can affect activities; legal definitions depend on context.

categorical exclusion

Rejecting an entire category of people without an individualized evaluation.

quality of life

A description or judgment about lived well-being; it is not a measure of human worth.

safeguard

A measure intended to reduce a specified risk or unfairness.

reasonable modification

A change to a usual practice to provide equal opportunity within the applicable legal context.

covered entity

An organization or person to whom a particular legal requirement applies.

protocol

A defined set of procedures and rules for a particular setting.

first-come order

Priority based on arrival time.

discretion

Room to make a judgment within a rule or process.

counterargument

A serious reason challenging a position.

rebuttal

A response that addresses the reason in a counterargument.

stipulated

Supplied as an assumption for an exercise, not measured.

clinical eligibility

Whether a person qualifies for a treatment under the relevant clinical evaluation.

authentic record

Evidence of work actually performed.

reflection

An explanation of how your understanding or response changed.

E1: breathing support and risk evidence

NHLBI explains that a ventilator moves air into and out of the lungs. It supports a person who finds it very hard to breathe or get enough oxygen into the blood. A mask or breathing tube can connect the person to the machine. Being fully awake is not a requirement described by this purpose statement.

Moving air supports gas exchange in the lungs; it does not replace the heart or directly filter the blood. Support does not guarantee recovery. The healthcare team sets the support. This lesson gives no operating instructions or permission to use a device.

CDC identifies older age and some underlying health conditions as risk factors for severe illness from respiratory viruses. This describes risk across groups. It does not provide an individual chance of surviving with a ventilator, or the extra benefit that treatment would provide.

Use this CDC fact in your defense: severe-illness risk is relevant background, but it cannot by itself rank individual treatment benefit. State both the fact and its limit. No survival percentages or actual patient records are supplied here.

E2: a scoped civil-rights source

HHS OCR discusses civil-rights protections in its COVID-19 crisis-care guidance. For covered entities, its discussion calls for decisions about each person based on sound medical facts. It rejects judgments that a person has less worth because of disability or age.

The source describes safeguards against rules that exclude whole groups based on disability or age, quality-of-life judgments and estimates without sound support. It also discusses reasonable modifications when tools that predict outcomes are used with people with disabilities.

These are statements from a US federal civil-rights discussion with a specific scope. They are not a complete hospital allocation protocol or a universal legal answer. Age-related medical evidence and a rule that values younger lives more are different claims. The source includes scope and exception details that qualified authorities must interpret.

For this classroom exercise, use equal human worth as a stated ethical safeguard. Do not assign worth based on disability, age, family role, wealth or social status. No student is authorized to decide fitness for treatment, predict a real outcome or allocate a real machine.

S1: a fully fictional shortage and task

Imagine a fictional hospital with eight available ventilators and twelve requests for urgent breathing support at the same moment. These counts are invented teaching inputs. The difference is four machines. It is a capacity shortfall, not a count of deaths.

We do not know the twelve people's individual care needs, wishes about care, ability to benefit or likely outcomes. The scenario does not state that all twelve will die tonight or that receiving a machine guarantees survival. It is not a documented Cleveland event.

Your task is to defend two criteria for a proposed classroom allocation policy, not to select eight named people. A criterion is a rule for comparing options. Explain the value behind each criterion and one genuine cost of using it.

Work as a fictional team that discusses triage when classmates are available. Assign a reader, a criteria recorder and an opposing-view checker; combine roles in a small group. Alone, perform all three thinking roles using R1 and T1. Label that route solo practice and ask how to join any required group exchange.

R1: two sides with two points each

Side A, expected-benefit priority, point 1: a relevant estimate of benefit from ventilation could help direct scarce support where it is more likely to help. This expresses an aim, not a proven result. It needs assessment of each person by qualified clinicians that this scenario lacks.

Side A, point 2: clear rules and checks for unfair predictions could make the reasoning open to challenge. A serious concern is that flawed estimates can wrongly lower a person's priority. General severe-illness risk is not enough to establish benefit.

Side B, first-come priority, point 1: a known arrival-order rule can be simple to explain and can reduce discretion in choosing between people. A serious concern is that earlier access may reflect transport or location advantages in some circumstances.

Side B, point 2: an arrival rule avoids pretending that this packet supplies precise individual survival forecasts. However, it can ignore relevant differences in treatment benefit if reliable information later becomes available.

Record all four points, two per side, for the absence route. State each point in your own words with its limitation. You may favor, combine or revise rules if you explain the safeguards and tradeoff. Neither side is automatically fair in every setting. These are authored arguments, not observed hospital outcomes.

T1: opposition, response and self-check

If you favor expected benefit, use this strong solo objection: “Your rule may exclude someone because an uncertain estimate was treated as a fact. How will you keep disability stereotypes out?” Respond by naming needed evidence, an ethical safeguard and a remaining tradeoff.

If you favor arrival order, use this strong solo objection: “Two equally urgent people may reach care at different times because access differs. Why should that difference decide?” Respond by defending or revising the rule and naming the remaining burden.

If you combine rules, answer both objections briefly. In a live discussion, record the actual opposing criterion and your response. Never claim the supplied quotation came from a classmate.

Self-check: a team proposes giving a ventilator to whoever is most likely to survive the illness. Name one potential strength and one real danger. Then name information needed before using that rule.

Check your reasoning: compare your strength with R1 Side A, point 1, and your danger with the T1 expected-benefit objection. Then check that your needed information separates chance of surviving without treatment from chance of benefiting from treatment. This packet supplies neither individual estimate. No rule here guarantees the largest number of survivors.

C1: warmups, recovery, extension and finish

Warmup 1: explain what a ventilator does using E1. Warmup 2: name one fact a qualified clinical team would need before evaluating a request. Identify it as missing here rather than inventing a patient history.

Prerequisite: explain the difference between a medical fact and an ethical priority. Use “machines move air” as the fact and “apply the same stated rule consistently” as a value-based priority.

Recovery: consider an invented queue with Request J arriving before Request K; all other information is unknown. An arrival-order criterion favors J and delays K. Explain one possible benefit and one burden. Do not assume either person survives or benefits more. Then return to S1 and add the second criterion, opposition, CDC fact and full position.

On-grade work contains two criteria with a reason for each, a response to an opposing criterion, and a position with a supporting reason and genuine tradeoff. Use E1’s CDC risk fact and explain why it cannot establish individual benefit. Keep source facts separate from your priorities.

Optional extension: two fictional requests have equal stipulated near-term chances of benefiting from treatment; one person is 20 and the other is 70. No benefit percentage is given. Should age alone break the tie? Defend an ethical position and answer its strongest objection. Apply E2’s equal-worth safeguard and explain why a classroom position does not show that a hospital could legally use that rule.

If you reject age as a tie-break, consider the objection that your alternative rule also creates a burden. If you support an age-related priority, address the objection that age alone does not establish greater worth or benefit. Do not claim that all age distinctions are legally identical.

Finish by labeling one factual sentence, one value judgment, one uncertainty and one tradeoff in your response. Reflect on a sentence you revised after opposition. Lost your place? Read S1, write two criteria, answer T1, then write your individual position and check P1.

P1: actual course, preparation and submission checks

Today's debate is original course practice on Friday, April 23, 2027. There is nothing new in myPLTW today; complete the triage exit ticket while staying on Lesson 3.1.

Activity 3.1.4 We Be-Lung Together covers respiratory anatomy, how lungs work, links to the heart and blood vessels, model analysis and dissection technique. This debate does not complete it; do not mark 3.1.4 complete unless you do that assigned work.

Its navigation lists Oxygen Supply, Heart and Lung Teamwork, Inside the Respiratory System, Sheep Pluck Exploration and Conclusion. Travel Journal pages 7–8 and separate conclusion questions are listed. Confirm the assigned portion with the teacher; this debate cannot complete those activities.

This week, April 19–23, calls for cardiovascular data evidence through 3.1.3, heart/vessel model and EKG work, cardiovascular data check, and Friday tracker evidence. If you were absent, the actual April 21 model/recording and April 22 calculation/ABI/journal/model/video work are still due. A draft or viewing badge does not prove performed work.

The lung-unit week, April 23–28, lists evidence through 3.1.6 plus a spirometry/client-clearance CER. Ask your teacher how that fits; it does not add a spirometry task to today's debate. April 27 next addresses lung-volume model totals.

Before April 23, the schedule lists 25 minutes for Submit tracker and evidence in Class Records. Preserve actual tracker evidence and the requested note OR screenshot after genuine work. The weekly absence route also needs the teacher-posted data/model packet and selected resources; this original debate does not supply or complete those.

Submit the exit ticket and supporting notes through your confirmed enrolled assignment. Section 1292: <https://app.schoology.com/assignment/8544593259> . Section 6792: <https://app.schoology.com/assignment/8544593279> . If access is unavailable, save a dated copy and tell the teacher. Check Schoology after uploading. Note only checks and next actions here, not personal health details. Use evidence from group exchanges, official work and the tracker only after doing that work; check Schoology after uploading.

M1: a different fictional resource decision

A fictional community center has one accessible meeting room and two requests for the same hour. Group L cannot use the upstairs room; Group M can use either room. Both requests arrived together. These are invented facts about room access, not medical cases.

Worked position: give the accessible room to L and offer M the upstairs room. Criterion 1 is usable access; criterion 2 is maintaining a meeting opportunity for both groups. The stated facts support the first criterion; prioritizing usable access is a value judgment.

Counterargument: M says that equal arrival time should mean a lottery. Response: a lottery treats timing equally, but could leave L with no usable room. The tradeoff is that M loses its preferred room. The unknown is whether the upstairs room meets all of M's other needs.

This model shows fact, criterion, reason, opposition and tradeoff. It does not demonstrate a ventilator rule or make meeting rooms equivalent to human lives. Apply the reasoning structure to S1 using E1 and E2, not these room facts.

Try the decision

Which statement stays within S1 and E1?

- Eight machines for twelve requests is a fictional capacity shortfall; CDC risk factors cannot provide individual treatment-benefit estimates.
- Four people will certainly die because twelve requests exceed eight machines.
- The CDC risk list tells us exactly which eight people will benefit most.

Explain your choice using the reading. Discuss it or say it to yourself. This practice does not add another submission.

Your 80-minute flow

0–8 minutes	Read S1, assign or combine roles and answer C1 warmups.
8–22 minutes	Read source cards, record both sides' four points and prepare two criteria.
22–40 minutes	Present a criterion and defend it with the source fact and value judgment.
40–55 minutes	Respond to actual opposition or labeled T1 solo opposition.
55–70 minutes	Write the individual position, supporting reason, criterion and tradeoff; answer the self-check.
70–80 minutes	Revise, reflect, share when possible and preserve the exit ticket and check record.

Your response record

Use these labels on paper or in your document. The space below also works when this page is printed.

Explain support and identify missing evidence

Complete both C1 warmups and the fact-versus-priority prerequisite. Read E1/E2 and S1; label the shortage fictional.

Use only supplied facts. Eight versus twelve means a four-machine shortfall, not four deaths.

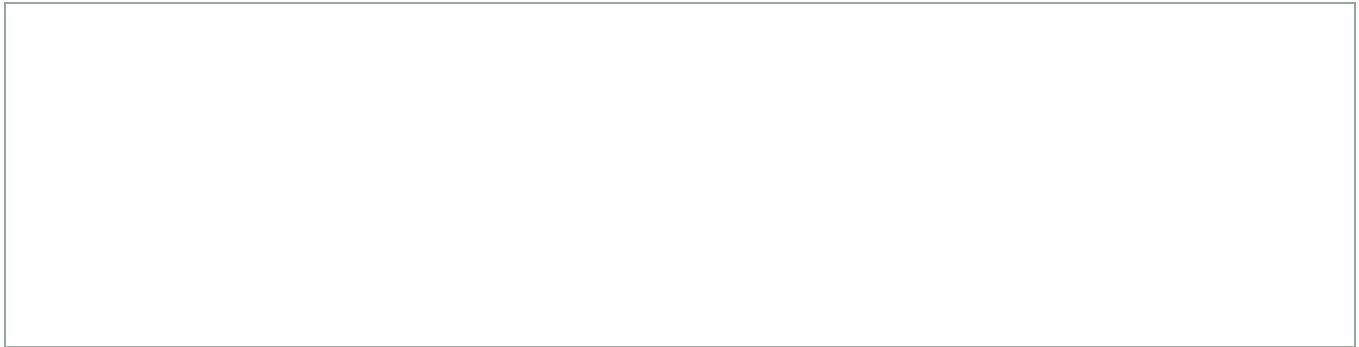
Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

Prepare both sides and two criteria

Use the S1 roles. Record the four R1 points, two per side, and prepare two criteria with a reason and possible burden for each.

In absence work, all four points are required. Alone, perform the three roles and label solo practice.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

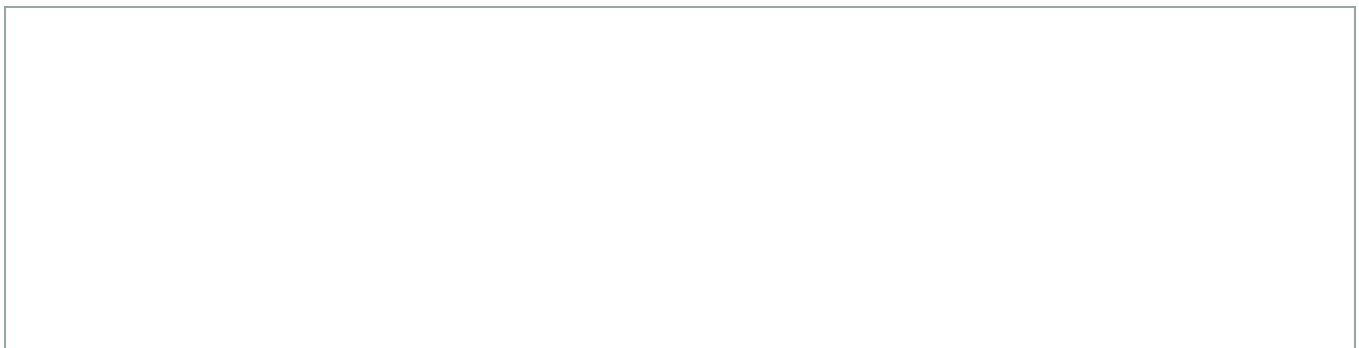


Present a supported ethical position

Present your stronger criterion and reason. Use one E1 CDC risk fact and explain why it cannot establish individual treatment benefit.

State which sentence is factual and which expresses your values. No person-ranking is required.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

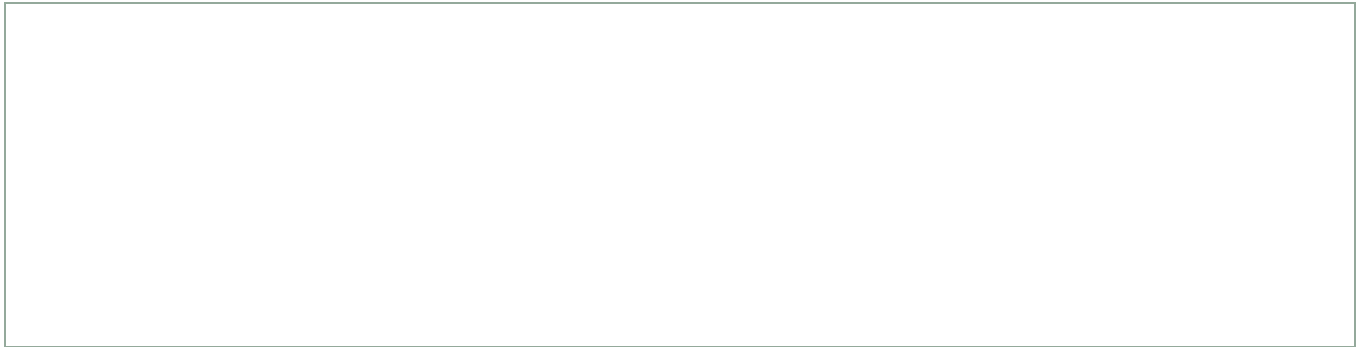


Address a serious opposing criterion

Record one actual opposing criterion and respond with a reason, safeguard and remaining tradeoff. Without a group, use the matching T1 challenge and label it supplied solo opposition.

Combined rules should address both T1 objections. Never invent a classmate's response.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

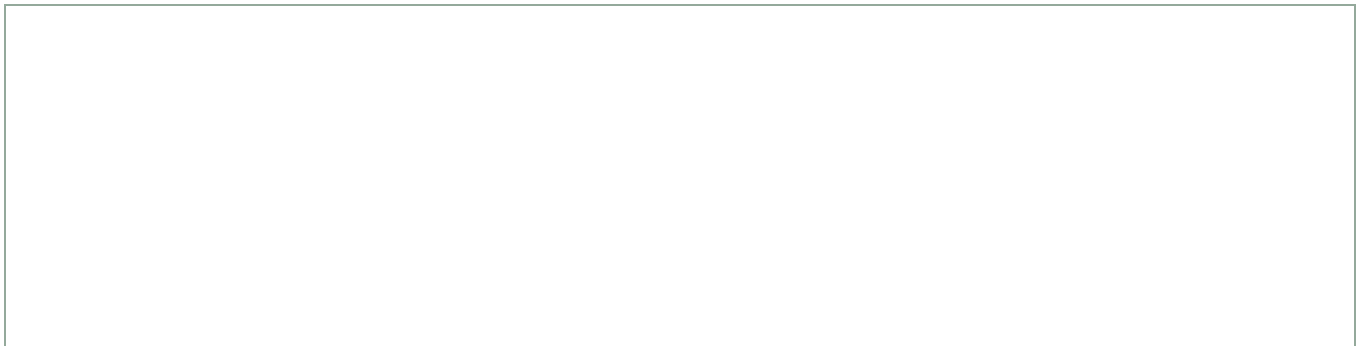


Write the individual allocation position

Write your position with one supporting reason, at least one named ethical criterion and a genuine tradeoff. Include the CDC fact and its individual-benefit limit; keep both preparation criteria and opposing response with the exit ticket.

Reasoned different priorities are acceptable within the stated safeguards. A list of criteria without reasons is incomplete.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.



Check, reflect and keep your evidence

Complete T1's strength/danger self-check and C1's factual/value/uncertainty/tradeoff labels and reflection. Attempt the optional equal-benefit age extension when ready. Use P1 to identify the work you checked and anything you need from the teacher.

Finish the full original product after any one-criterion recovery. Ask for missing official-task materials. Save your work if access fails and check Schoology after uploading.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

Check your product

- Two preparation criteria each have a reason and acknowledged burden.
- The defense uses the CDC risk fact and states its individual-benefit limit.
- The exit ticket has a position, criterion, supporting reason and genuine tradeoff.
- Keep four both-side points, an opposing response and the self-check. Identify anything you need from the teacher.

Keep the limit: This original debate supports reasoned ethical positions. It cannot establish individual prognosis, a clinical allocation protocol, legal advice, actual group participation or official completion.

Turn in your work

Submit the exit ticket and supporting debate notes to the confirmed enrolled route: section 1292

<https://app.schoology.com/assignment/8544593259> or section 6792

<https://app.schoology.com/assignment/8544593279> . Retain actual tracker note OR screenshot after genuine official work.

If access is unavailable, save a dated practice response and tell the teacher. Ask for missing group-discussion, official-activity and tracker directions before doing that work.

[Section 1292: Wk14 Exit ticket: Ventilator allocation ethics debate](#)

[Section 6792: Wk14 Exit ticket: Ventilator allocation ethics debate](#)

Carry forward

Medical evidence can inform allocation choices, but it cannot erase uncertainty or choose ethical priorities for us.

Which parts belong in each lung-volume total?

Sources and resources

[Open today's page](#)

NHLBI-VENT · Ventilator/Ventilator Support: What Is a Ventilator?

National Heart, Lung, and Blood Institute

<https://www.nhlbi.nih.gov/health/ventilator>

CDC-RISK · People at Increased Risk for Severe Respiratory Illnesses

Centers for Disease Control and Prevention

<https://www.cdc.gov/respiratory-viruses/risk-factors/index.html>

HHS-OCR · Civil Rights and COVID-19: Non-discrimination in Crisis Standards of Care

HHS Office for Civil Rights

<https://www.hhs.gov/civil-rights/for-providers/civil-rights-covid19/index.html>

NHLBI-FAILURE · Respiratory Failure: What Is Respiratory Failure?

National Heart, Lung, and Blood Institute

<https://www.nhlbi.nih.gov/health/respiratory-failure>