*Cursive are some of my thoughts to this*

Ideas to turn this into a paper:

- Make the whole positioning much sharper: Change title more targeted to this, decide on key way to ensemble the Q-nets or show all 3 but pick one approach to make these 3 others part paper  (there are 3 ways to target this)

- (Bonus) Better if we can do the whole thing end-to-end i.e. do training E2E  *(likely better way would be to instead elaborate more on the pareto pruning step, e.g. explain and analyze the output more thoroughly + in depiction of algorithm directly include pruning and just not frame it so strongly as a 2-step approach)*

- Better literature review e.g. how is the specification challenging, make a more fleshed out analysis of previous work

- Results: Make it about critical or about action-space pruning in general. For action space pruning in general, do more experiments on different environments, need to submit to RL track and this is a tough track to get papers submitted to (lower acceptance rate) *(this is something we do not prefer)*

Or make it about critical care: But then make motivation and related work tailored to ICU set-up. Issue so far no improvement on MIMIC. What to do

--> create semi-synthetic set-up where we can control the reward (observe SOFA score only with a lage), simulate different reward regimes, show that the proposed set-up is better for some regime.

--> Semi-synthetic set-up (fully design the DGP and show we learn the ground truth), MIMIC experiments maybe change the cohort + try differnent scores and introduce further rewards

*🡪 Check whether our step is good at bad action detection (i.e. are the state-action pairs that are dropped those belonging to majorly trajectories that belong to deaths)*

🡪 *Consider building Toy environment similar to LifeGate in Fatemi et al. paper*

Show behavior of the method for different reward sparsity

3rd) Compare some of the methods e.g. medical dead-end and compare it with their approach and see whether we do better *(if we frame it as a dead-end problem)*

Maybe check whether we can improve against other methods

More robust than the noisiness of previous methods

Medical dead-end will be a good comprision. Potential to submit to the application track.

Have a chance to turn this into a good paper and should aim for good conferences.

Change experimental set-up to make a point about something