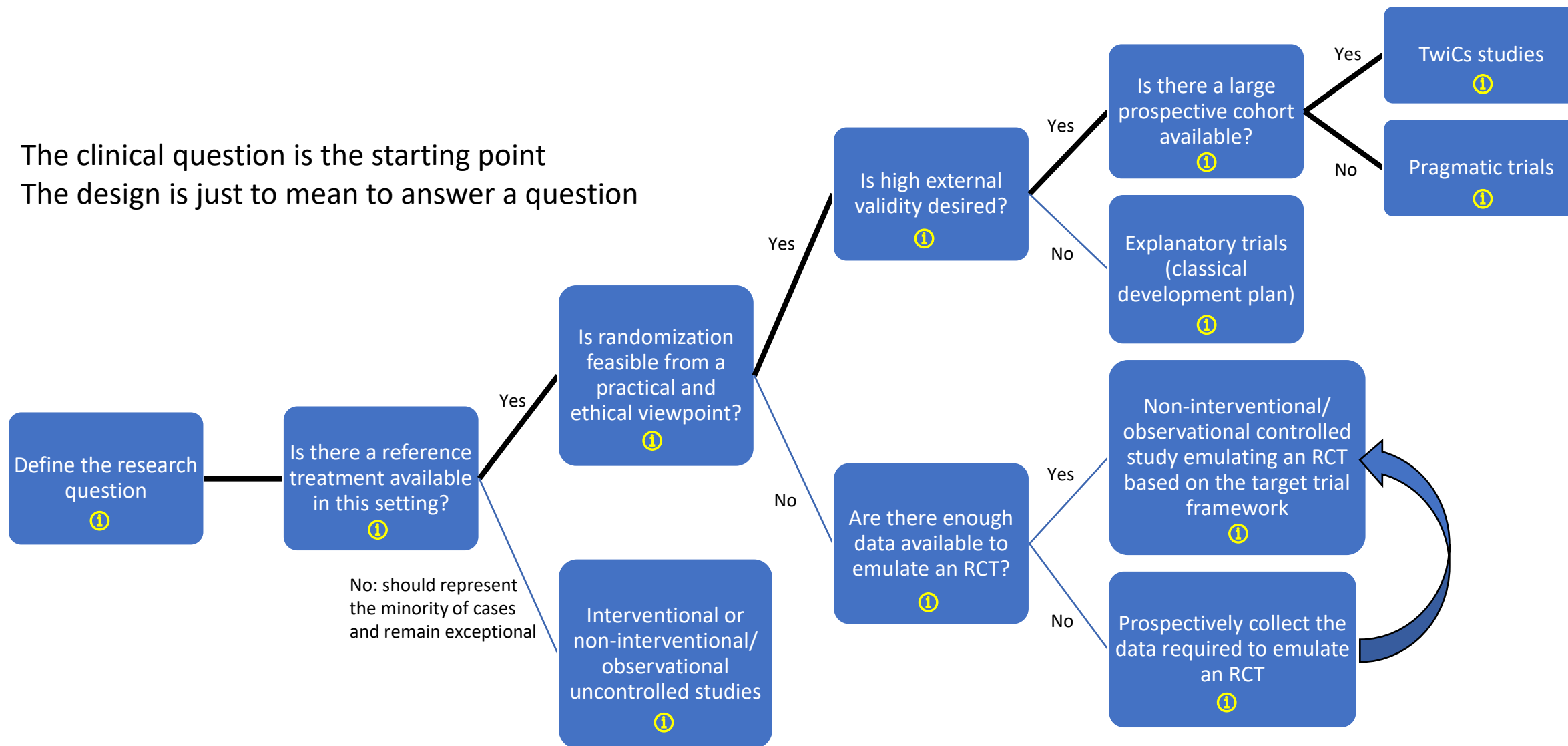


# Synthetic and external controls for clinical trials

The clinical question is the starting point  
The design is just a means to answer a question



Thick lines represent the default route to deliver evidence for trial design selection

# Recommendations

- RCT remains the golden standard
- Each synthetic control project has its own challenges: no one solution fits all
- Consider pragmatic clinical trials for rare clinical situations
- Early perception of the lack of equipoise is a disservice to patients and society
- Non randomised approaches are not necessarily faster and cheaper but carry certainly more uncertainty
- Always attempt to produce the highest level of robustness

# Definitions and Assumptions

- Any source of clinical data: CT, cohorts, routine, insurance claims, registries
  - Caution: above by order of validity
  - Recent vs older dataset
- Validity and reliability:
  - Dataset
  - Method to create a synthetic group
- Evolution of the stds of care, guidelines, disease stage migration etc...
- Clinical outcome of relevance: quality control in real life
- Bench marking  $\neq$  comparison: uncertainty