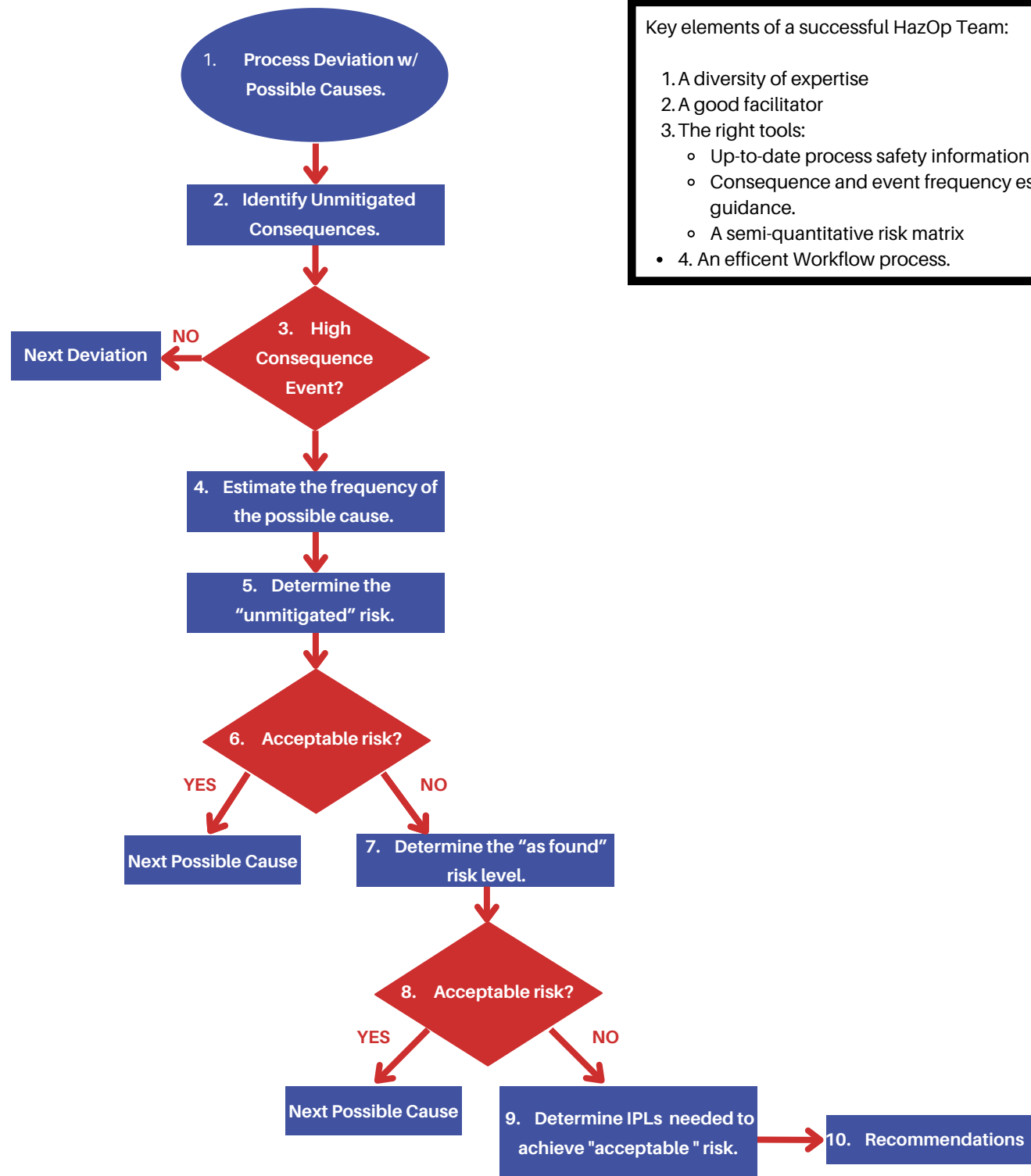


# HazOp Workflow

1. Using the HAZOP worksheet, pick the process deviation.
2. Determine the **unmitigated** consequences associated with the deviation
3. Are the consequences of the **unmitigated** deviation acceptable? If so, go to the next process deviation.
4. If the consequence of the deviation is unacceptably high, estimate the frequency of the possible cause(s) as identified by the Team.
5. Using the frequency and consequence data and the risk matrix, determine the **unmitigated** risk of the event.
6. Is the **unmitigated** risk acceptable? If so, the next possible cause can be evaluated in Step 4. If not, go to the next step.
7. Identify the existing Independent Protection Layers (IPLs) and determine the **as-found** risk using the risk matrix.
8. Is the **as-found** risk acceptable? If so, the next possible cause can be analyzed.
9. If the **as-found** risk is unacceptable, use the risk matrix to determine how many and what types of IPLs need to be implemented.
10. Make the appropriate recommendations to reduce the risk to an acceptable level.
11. Once all the possible causes of the process deviation have been reviewed, go to the next deviation/guide words.



## Key elements of a successful HazOp Team:

1. A diversity of expertise
2. A good facilitator
3. The right tools:
  - Up-to-date process safety information
  - Consequence and event frequency estimation guidance.
  - A semi-quantitative risk matrix
- 4. An efficient Workflow process.