

Appendix 1. Nine rules for applying the Australian Patient Safety Foundation ‘Recursive model of incident analysis ‘ (from Rees et al., 2015)⁵¹

Rule	Example
1. An incident has a set of contributing factors.	The wrong vaccine was administered (Incident) because the child’s ‘red book’ was not available (CF) and the computer records were not up to date (CF).
2. An incident can be a contributing factor to another incident.	Records not up to date (Incident and CF), the wrong vaccine was administered (Incident).
3. Some contributing factors cannot be incidents in their own right.	A mistake (CF not an incident) led to the wrong prescribed medication dose (Incident).
4. An incident has a set of outcomes.	Wrong vaccine administered (Incident) requiring the correct vaccine to be administered (Outcome).
5. An incident can be an outcome of another incident.	Records not up to date (Incident) leading to the wrong number of vaccine doses (Incident and Outcome).
6. Some outcomes cannot be incidents in their own right.	Admission to hospital (Outcome) after wrong prescribed medication (Incident).
7. An outcome of an incident could be a contributing factor to another incident.	Communication error between health care professionals (Incident) led to records not being up to date (Incident and Outcome) which led to a vaccine-related error (Incident).
8. An incident type can be designated the ‘Principal Incident Type’ that is the incident proximal to the descriptive patient outcome.	Communication error (Incident) led to inaccurate records (Incident) and results in the incorrect vaccine administration (Principal Incident Type).
9. The outcome of a Principal Incident Type cannot be an incident.	Admission to hospital (Outcome) after failure to access relevant health care professional (Principal Incident Type).