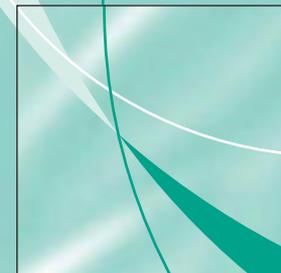# Appendix 7:

Examples of risk matrices

Example 1. Open Disclosure Standard – Appendix D

Example of matrix for initial assessment of level of response

The following table is an example of a matrix to assess the level of response to an adverse event/incident. The matrix used will vary depending on local policies.

Assessment of level of response

Level of Response	Consequence	Action
High	Death or major permanent loss of function not related to the natural condition of the patient	Immediately notify individual responsible for clinical risk management.
	Permanent lessening of bodily function not related to underlying condition of patient or where surgical intervention or transfer to higher level of care required (eg transfer to ICU)	Disclosure by senior medical practitioner or alternate with support where indicated
Low	No permanent Injury nor increased level of care required	Local management, incident report. Disclosure by senior health care professional

Example of incident grading matrix

The following table is an example of a matrix for grading an Incident to determine the level of investigation required. The matrix used will vary depending on the policy of the organisation.

The tables are reproduced from AS/NZS 4360 *Risk management.* It is strongly recommended that users of the Open Disclosure Standard consult the complete AS/NZS 4360 for the context in which this table is presented and for detailed information on its use and application.

TABLE 1:
Qualitative measures of consequence or impact

Level	Descriptor	Example detail description
1	Insignificant	No injuries, low financial loss
2	Minor	First aid treatment, on-site release immediately contained, medium financial loss
3	Moderate	Medical treatment required, on-site release contained with outside assistance, high financial loss
4	Major	Extensive injuries, loss of production capability, off-site release with no detrimental effects, major financial loss
5	Catastrophic	Death, toxic release off-site with detrimental effect, huge financial loss

Measures used should reflect the needs and nature of the organisation and activity under study.

TABLE 2:
Qualitative measures of likelihood

Level	Descriptor	Description
A	Almost certain	Is expected to occur in most circumstances
B	Likely	Will probably occur in most circumstances
C	Possible	Might occur at some time
D	Unlikely	Could occur at some time
E	Rare	May occur only in exceptional circumstances

Measures used should reflect the needs and nature of the organisation and activity under study.

TABLE 3:

Qualitative risk analysis matrix – level of risk

Likelihood	Consequences				
	Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
A (almost certain)	H	H	E	E	E
B (likely)	M	H	H	E	E
C (moderate)	L	M	H	E	E
D (unlikely)	L	L	M	H	E
E (rare)	L	L	M	H	H

The number of categories should reflect the needs of the study.

Legend:

E   extreme risk; immediate action required

H   high risk; senior management attention needed

M   moderate risk; management responsibility must be specified

L   low risk; manage by routine procedures

Source:

Australian Council for Safety and Quality in Health Care (2003) *Open Disclosure Standard: a National Standard for Open Communication in Public and Private Hospitals, Following an Adverse Event in Health Care*, Commonwealth of Australia, July 2003. pp 37-39.
http://www.safetyandquality.org

Example 2. Safety Assessment Code (SAC) Matrix

		Severity			
		Catastrophic	Major	Moderate	Minor
Probability	Frequent	3	3	2	1
	Occasional	3	2	1	1
	Uncommon	3	2	1	1
	Remote	3	2	1	1

How the SAC matrix works

When you pair a severity category with a probability category for either an actual event or close call, you will get a ranked matrix score:

- highest risk = **3**

- intermediate risk = **2**

- lowest risk = **1**

These ranks, or *Safety Assessment Codes (SAC)*, can then be used for doing comparative analysis.

Severity Categories:

Key factors for the severity categories are:

- extent of injury

- length of stay

- level of care required for remedy

-and- actual or estimated physical plant costs. These categories apply to actual adverse events and potential events (close calls). For actual adverse events, assign severity based on the patient's actual condition. If the event is a close call, assign severity based on the most likely 'worst case', systems level scenario.

Catastrophic	Major
Patients with Actual or Potential: Death or major permanent loss of function (sensory, motor, physiologic, or intellectual) not related to the natural course of the patient's illness or underlying condition (i.e., acts of commission or omission).	**Patients with Actual or Potential:** Permanent lessening of bodily functioning (sensory, motor, physiologic, or intellectual) not related to the natural course of the patient's illness or underlying conditions (i.e., acts of commission or omission).
- Suicide (inpatient or outpatient) - Rape - Hemolytic transfusion reaction - Surgery/Procedure on the wrong patient or wrong body part - Infant abduction or infant discharge to the wrong family	- Disfigurement Surgical intervention required - Increased length of stay of more than 3 patients - Increased level of care for more than 3 patients
Death or major permanent loss of function that is a **direct result** of injuries sustained in a fall; **or associated with** an unauthorized departure from an around-the-clock treatment setting; **or the result** of an assault or other crime.	**Visitors** More than 3 visitors requiring evaluation and treatment
Visitors and Staff Death; or Hospitalization of 3 or more (includes outpatients)	**Staff** More than 3 lost time or restricted duty injuries or illnesses
	Equipment or facility Damage more than $100,000

Moderate	Minor
Patients with Actual or Potential: Increased length of stay for up to three patients; or Increased level of care for up to three patients.	**Patients with Actual or Potential:** No increased length of stay or increased level of care
Visitors Evaluation and treatment for up to three visitors	**Visitors** Evaluated and no treatment required or refused treatment
Staff Less than three lost time or restricted duty injuries or illnesses	**Staff** No lost time or restricted duty injuries or illnesses
Equipment or facility Damage more than $10,000 but less than $100,000	**Equipment or facility** Damage less than $10,000

Probability:

In order to assign a probability rating for an adverse event or close call, it is ideal to know how often it occurs *at your facility*. Sometimes the data will be easily available because it is routinely tracked. Sometimes getting a feel for the probability of events which are not routinely tracked will mean asking for a quick or informal opinion from staff most familiar with those events. Sometimes it will have to be your best educated guess.

- **Frequent** – Likely to occur immediately or within a short period of time (may happen several times in one year).

- **Occasional** – Probably will occur in time (may happen several times in 1 to 2 years).

- **Uncommon** – Possible to occur in time (may happen sometime in 2 to 5 years).

- **Remote** — Unlikely to occur (may happen sometime in 5 to 30 years).

Source:

The SAC information above is reprinted directly from the US Department of Veterans Affairs National Centre for Patient Safety (NCPS):

http://www.patientsafety.gov/ (NCPS homepage)
http://www.patientsafety.gov/matrix.html (direct link to matrix)