

Module 1B – Knowledge Representation

1. Identify a statement that can be decomposed into an IF..... THEN rule and decompose to its individual elements

The topic for the IF ... THEN statement is related to *immunization administration*. There are many more IF... THEN statements that could apply to vaccine administration; this is a sample.

Statement: Many vaccines schedules include multiple doses given at various time intervals and that start at a certain age.

- IF an infant/child has reached a certain age, THEN the infant/child can receive the first dose of a vaccine series.
- IF an infant/child has reached a certain age AND has received the first dose of vaccine in the vaccine series AND a specified minimum time frame has passed, THEN the child can receive the next dose in the vaccine series.
- IF an infant/child has reached a certain age AND has received a dose of vaccine in the vaccine series AND the specified maximum timeframe representing the time interval for the next dose has passed AND the infant/child did not receive the dose of vaccine, THEN the vaccine dose is considered overdue.

2. Identify an object and create a frame for the object with slots and attributes.

OBJECT	Medication	Example
Slot	Class	Vaccine
Slot	Name	Hepatitis B vaccine
Slot	Generic	Hepatitis B vaccine
Slot	Brand	Engerix-B
Sub-slot	Company	GlaxoSmithKline
Slot	Indication	Hepatitis B immunization
Slot	Dose	10mcg
Slot	Route	IM
Slot	Side effects	Site soreness
Slot	Adverse reactions	Local reaction; malaise; anaphylaxis
Slot	Contraindications	Yeast hypersensitivity
Slot	How supplied	Single-dose vial

3. Discuss how the identified frame can incorporate more than one object

This frame can be applied to any type of medication which allows one to categorize all medications. There are several medication categories, often referred to as the “class”. Each class has hundreds of medications each of which can be described by the attributes in the slots.