

6.6 Expressions With Concrete Values

New attributes that are added to the SNOMED CT concept model (or to a SNOMED CT extension) may require their value to be concrete. Concrete values include integers (e.g. 500), decimals (e.g. 2.75), strings (e.g. "PANADOL"), and booleans (e.g. TRUE¹).

The expression shown below uses both concept values and concrete values to represent a product containing precisely 500 milligram amoxicillin per oral tablet. In this case, the dose form, the active ingredient, the basis of strength substance, and the strength unit all use a concept as their value, while the strength numerator and denominator are represented using a numeric value. Furthermore, the |Count of base of active ingredient| also uses a numeric value, and represents the number of substances that is the part of the ingredient that the strength of a given product is based upon. The numeric values are indicated in the expression by the preceding '#' symbol (e.g. #500).

```
778317004 |Product containing only amoxicillin in oral dose form (medicinal product form)| :
411116001 |Has manufactured dose form (attribute)| = 421026006 |Conventional release oral tablet (dose form)| ,
763032000 |Has unit of presentation (attribute)| = 732936001 |Tablet (unit of presentation)| ,
1142139005 |Count of base of active ingredient (attribute)| = #1,
766939001 |Plays role (attribute)| = 787994008 |Antibacterial therapeutic role (role)|
{ 762949000 |Has precise active ingredient (attribute)| = 372687004 |Amoxicillin (substance)| ,
  732943007 |Has basis of strength substance (attribute)| = 372687004 |Amoxicillin (substance)| ,
  1142135004 |Has presentation strength numerator value (attribute)| = #500,
  732945000 |Has presentation strength numerator unit (attribute)| = 258684004 |milligram (qualifier value)| ,
  1142136003 |Has presentation strength denominator value (attribute)| = #1,
  732947008 |Has presentation strength denominator unit (attribute)| = 732936001 |Tablet (unit of presentation)| }
```

The expression below represents a medicinal product that contains precisely chlorhexidine diacetate 10 milligrams per gram conventional release cutaneous powder.

```
778726003 |Product containing only chlorhexidine in cutaneous dose form (medicinal product form)| :
411116001 |Has manufactured dose form (attribute)| = 385112003 |Conventional release cutaneous powder (dose form)| ,
1142139005 |Count of base of active ingredient (attribute)| = #1
{ 762949000 |Has precise active ingredient (attribute)| = 96317008 |Chlorhexidine diacetate (substance)| ,
  732943007 |Has basis of strength substance (attribute)| = 96317008 |Chlorhexidine diacetate (substance)| ,
  1142138002 |Has concentration strength numerator value (attribute)| = #10,
  733725009 |Has concentration strength numerator unit (attribute)| = 258684004 |milligram (qualifier value)| ,
  1142137007 |Has concentration strength denominator value (attribute)| = #1,
  733722007 |Has concentration strength denominator unit (attribute)| = 258682000 |gram (qualifier value)| }
```

Boolean and string-based concrete values may also be used². For example, the expression below represents a tablet containing 500 mg of paracetamol with a trade name (or brand name) of "PANADOL"³.

```
322236009 |Paracetamol 500mg tablet| : 774158006 |Has product name (attribute)| = "PANADOL"
```

And the expression below represents an Irbesartan 150 mg tablet that is eligible for reimbursement through the national benefit scheme (of the given country)⁴.

```
318969005 |Irbesartan 150 mg oral tablet| : 859999999102 |is in national benefit scheme| = TRUE
```

Footnotes

RefNotes

- 1 Boolean values are not permitted in the SNOMED CT International edition.
- 2 Boolean and string-based concrete values should be used with caution. Care must be taken to only use these in situations in which the clinical meaning cannot be adequately defined using a concept value.
- 3 Concrete values of type string are case sensitive and compared using the Unicode Collation Algorithm (<http://www.unicode.org/reports/tr10/>).
- 4 The concept 859999999102 | is in national benefit scheme | is a fictitious attribute used here to illustrate boolean values.