Public Health England

SACT Dataset version 3.0

Dataset Logic document

Author : **Wayne Brown**

Date of Issue : **June 2019**

Version : **2.5**

THIS DOCUMENT IS VALID ONLY WHEN VIEWED IN PDF FORMAT. IF IT IS PRINTED INTO HARD COPY OR SAVED AS ANOTHER FILE EXSTENSION, YOU MUST CHECK THAT THE VERSION NUMBER ON YOUR COPY MATCHES THAT OF THE AUTHOR. PRINTED DOCUMENTS ARE UNCONTROLLED COPIES.

VERSION HISTORY

Version #	Author	Revision Date	Revision Notes
1.0	Wayne Brown	March 2019	*Create Document*
1.1	Wayne Brown	March 2019	Add content
1.2	Wayne Brown	March 2019	Add diagrams
1.3	Wayne Brown	March 2019	Update outcomes
1.4	Wayne Brown	March 2019	Content changes following feedback
1.5	Wayne Brown	April 2019	Removed SNOMED CT logic flow
1.6	Wayne Brown	April 2019	Added Mapping codes for UOM & ROA
1.7	Wayne Brown	April 2019	Added decision tree for Outcomes Toxicity
1.8	Wayne Brown	April 2019	Update to terms (SNOMED & dm+d)
1.9	Wayne Brown	April 2019	Added Other to Curative intent
2.0	Wayne Brown	April 2019	First draft created
2.1	Wayne Brown	May 2019	Outcomes Updated
2.2	Wayne Brown	June 2019	SNOMED CT update
2.3	Wayne Brown	June 2019	Added Intent mappings for continuity
2.4	Wayne Brown	June 2019	Second draft created
2.4	Wayne Brown	June 2019	Updated Intent mappings with clinical feedback

TABLE OF CONTENTS

1. INTRODUCTION

The new dataset version 3.0 is due to be launched in September 2019. The dataset v3.0 contains certain data items that will require a system logic to assist the user in being able to report the expected data in their submissions.

There are some high impact data items where inbuilt system logic will play a key role in standardising the data we receive and supporting trusts to submit appropriate data in line with the data item aims.

By understanding how the logic is applied, we can control the flow of information.

The way the logic is handled may vary by system provider but if the aim and result of the individual logic are the same then this will play a key role in standardising the responses from different software providers.

2. PROJECT OBJECTIVES

To establish the key dataset items and document a series of logic rules which will provide the expected data and standardise the data received.

2.1 SACT TEAM TO IDENTIFY KEY DATA ITEMS

The SACT team will review the dataset v3.0 to identify the key dataset items where an agreed logic will need to be in place.

2.2 SACT TEAM TO ESTABLISH LOGIC FOR KEY ITEMS

The SACT team will establish and agree a series of standard logics for each of the key dataset v3.0 items

2.3 SOFTWARE PROVIDERS TO AGREE LOGIC

Software providers will be contacted to discuss how the logic will be implemented in their own system. Logic may be applied slightly differently across due to variation set up. This is acceptable as long as the results are the same

Software providers will need to agree the logic.

3. KEY LOGIC DATASET V.3 ITEMS

High Impact dataset items - where logic will play a key role

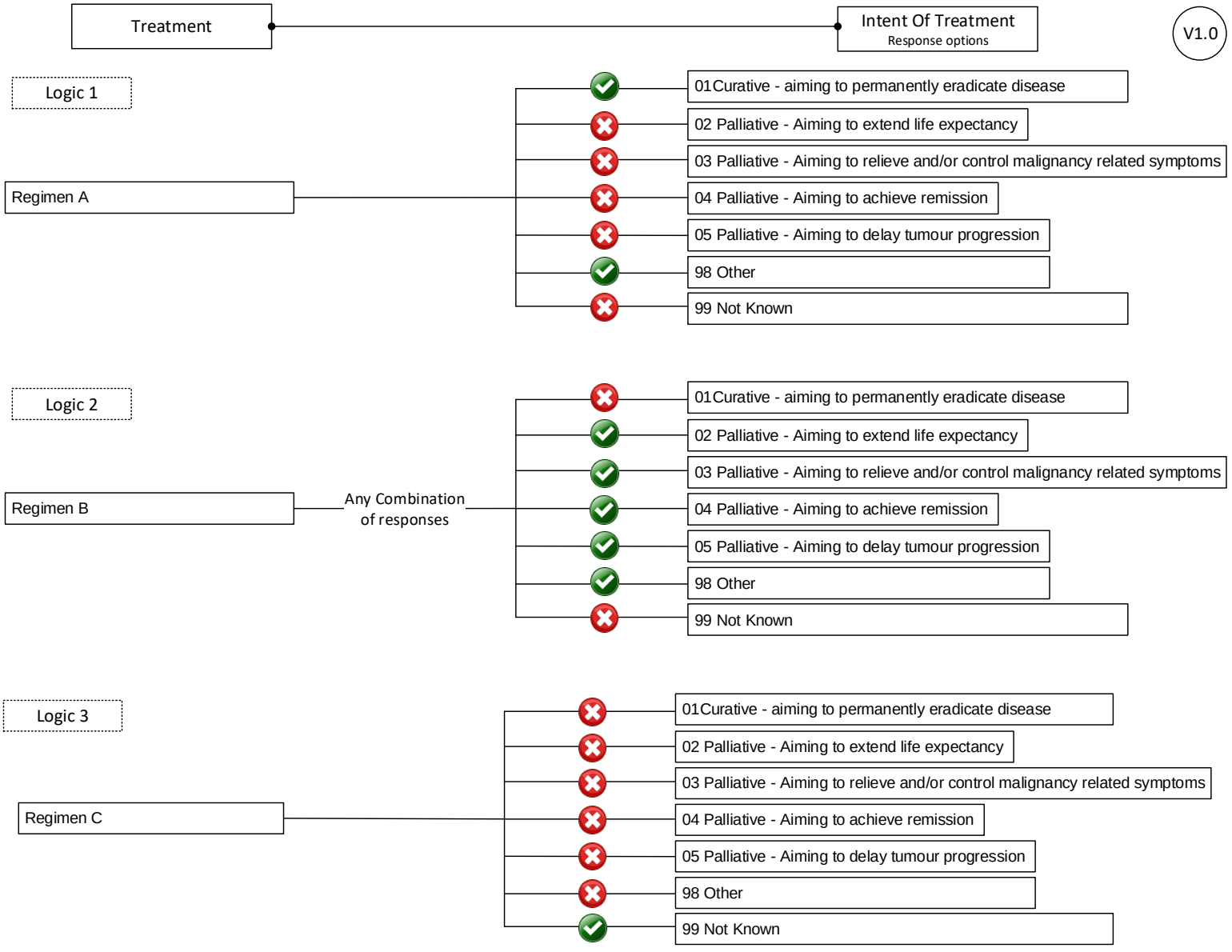
Item number	Dataset Item name
15	Intent of treatment
48	Diagnosis code (SNOMED CT)
50	Performance status at start of regimen – adult
51	performance status at start of cycle – adult
55	unit of measurement (SNOMED CT dm+d)
56	route of administration (SNOMED CT dm+d)
57	regimen outcome summary - curative (completed as planned)
58	regimen outcome summary - curative (not completed as planned) reason
59	other - regimen outcome summary - curative (not completed as planned) reason
60	regimen outcome summary - non curative

4. RECOMMENDED LOGIC

4.1 INTENT OF TREATMENT

The Intent of treatment is a repeating data item, which means that more than one response option can be submitted for this data item.

However, it should be clear to trusts that they are able to select multiple response options, however a patient would not be expected to have both a Curative and Palliative intent.



4.2 DIAGNOSIS CODE (SNOMED CT)

SNOMED and ICD-10/-03 are conceptually different and designed to act as complementary coding systems serving different roles. ICD codes enable consistent reporting to a national, public health database. The codes are updated approximately every 3 years and are used to allow statistical and epidemiological analysis.

SNOMED codes are designed as a digital input language at the point of care. Codes are regularly updated every few weeks and additional codes are added. The SNOMED CT UK clinical extension should be used for all data submissions.

Classification maps are available which map SNOMED CT to ICD-10 codes but this is not a fully automated process, and will require additional expertise in the application of the classifications.

There is no direct mapping available. We have been working with NHS digital coding teams and for each primary ICD there are multiple SNOMED CT options available.

Example:

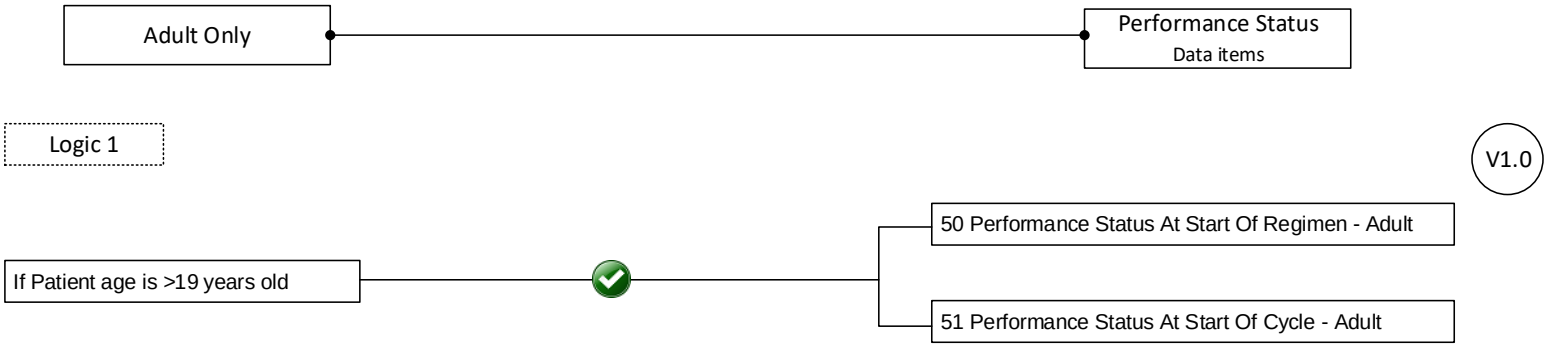
ICD-10 code	**ICD-10 code description**	**Number of SNOMED concepts mapped to this ICD-10 code**	**Sample of corresponding SNOMED concepts** (a maximum of 10 examples provided)
C50.9	Malignant neoplasm: Breast, unspecified	53	Malignant neoplasm of ectopic site of female breast (disorder), 188159008 Malignant neoplasm of ectopic site of male breast (disorder), 188168005 Cancer en cuirasse (disorder), 254841008 Inflammatory carcinoma of breast (disorder), 254840009 Carcinoma of breast (disorder), 254838004 Malignant phyllodes tumour of breast (disorder), 254844000 Lobular carcinoma of breast (disorder), 278054005 Malignant neoplasm of male breast (disorder), 372095001 Carcinoma of male breast (disorder), 372096000 HER2-positive carcinoma of breast (disorder), 427685000

4.3 PERFORMANCE STATUS AT START OF REGIMEN – ADULT

The default criteria for this data item is as follows

If patient is aged 19 years or older then provide data as World Health Organisation codes.

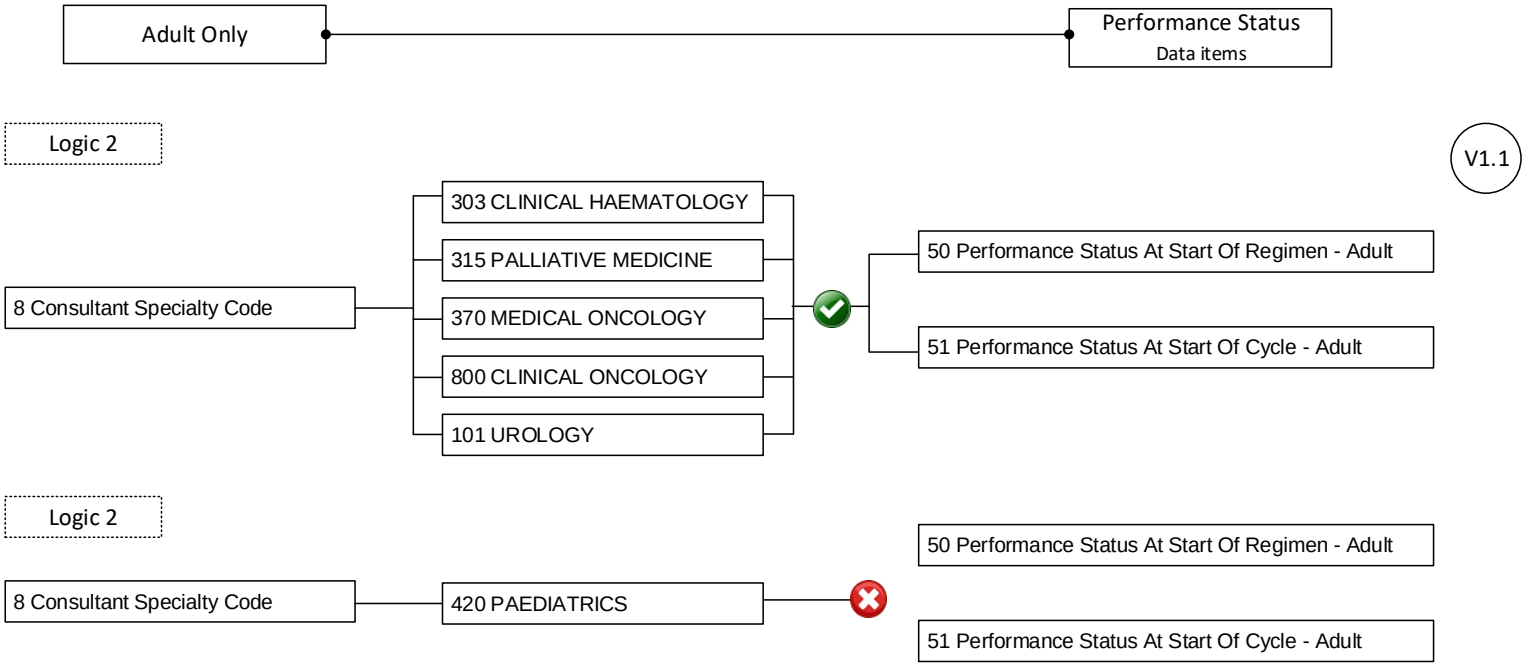
Default Logic



However, this is also affected by the following

- Patient choice of treatment location
- Provider choice treatment location
- Treating clinician's speciality

Logic using treating clinician's specialty code (**Recommended Logic**)



Note: This is suggested logic on how providers can extract data and does not necessarily reflect how PHE will validate this data item.

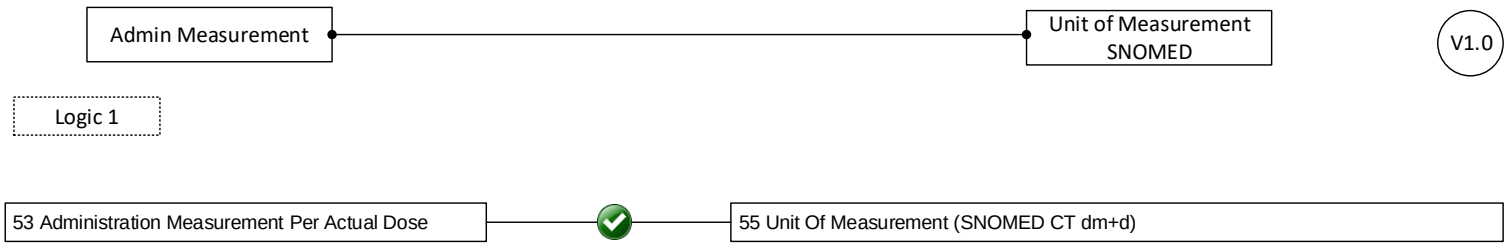
4.4 PERFORMANCE STATUS AT START OF CYCLE – ADULT

Refer to above logic 4.3

4.5 UNIT OF MEASUREMENT (SNOMED CT DM+D)

This field is mappable to the SACT measurement dose unit.

The SACT team have worked with NHS Digital to be able to provide the list for linking purposes.



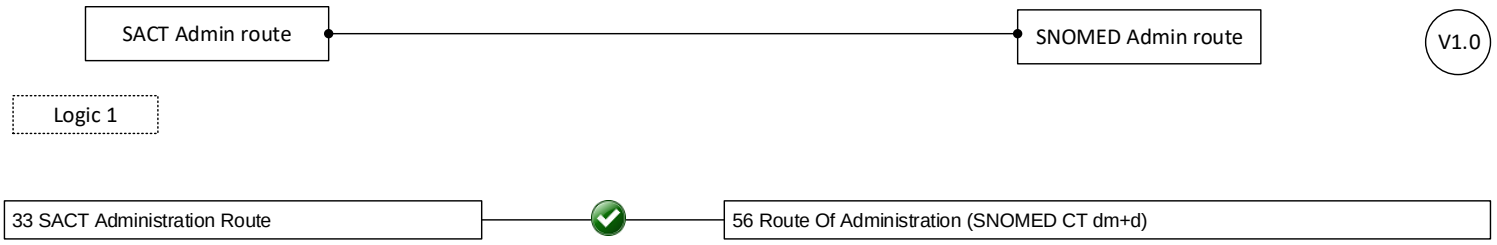
Item mappings:

Item #53 ADMINISTRATION MEASUREMENT PER ACTUAL DOSE		Item #55 UNIT OF MEASUREMENT (SNOMED CT DM+D)
01	mg	258684004
02	Mcg	258685003
03	g	258682000
04	Units	408102007
05	Cells	10693211000001102
06	x10^6 PFU	N/A
07	x10^8 PFU	N/A
98	Other	74964007
99	Not Known	261665006

4.6 ROUTE OF ADMINISTRATION (SNOMED CT DM+D)

This field is mappable to the SACT Route of administration

The SACT team have worked with NHS Digital to be able to provide the list for linking purposes.



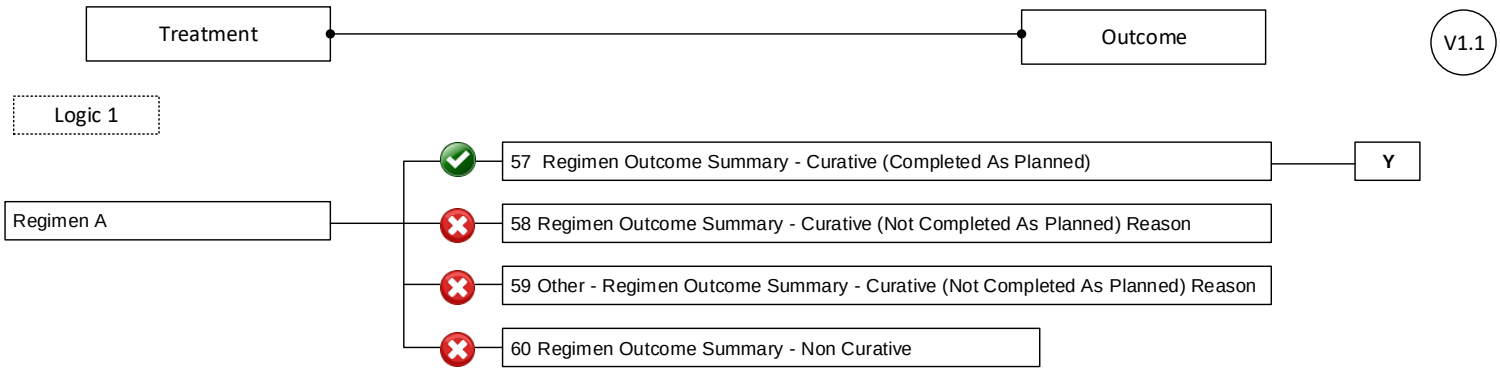
Item mappings:

Item #33 SACT ADMINISTRATION ROUTE		Item #56 ROUTE OF ADMINISTRATION (SNOMED CT DM+D)
01	Intravenous	47625008
02	Oral	26643006
03	Intrathecal	72607000
04	Intramuscular	78421000
05	Subcutaneous	34206005
06	Intraarterial	58100008
07	Intraperitoneal	38239002
08	Other intracavity Intracavernous	372461007
09	Intravesical (Intra-Vesicular)	372471009
11	Cutaneous (Topical)	6064005
12	Intradermal	372464004
13	Intratumour	447122006
14	Intralesional	372466002
98	Other	74964007

5. OUTCOMES

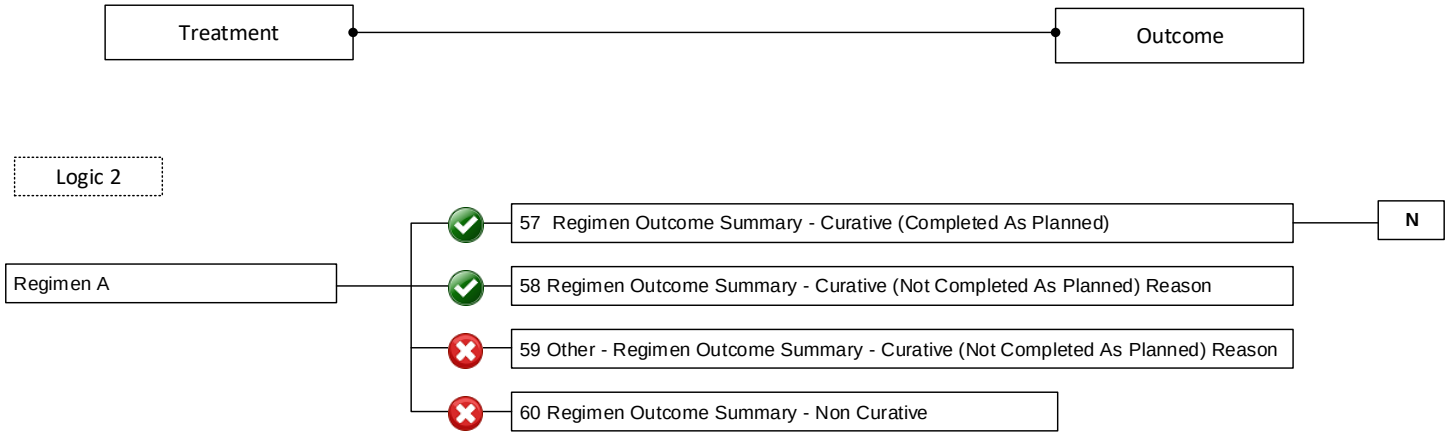
5.1 REGIMEN OUTCOME SUMMARY - CURATIVE (COMPLETED AS PLANNED)

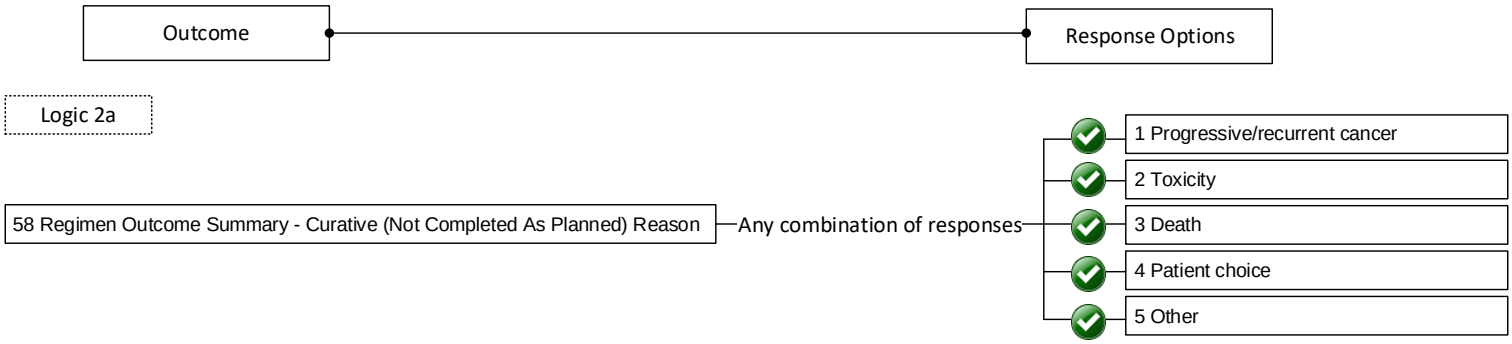
Each regimen will have an appropriate outcome and not all outcomes are applicable to a single regimen.



5.2 REGIMEN OUTCOME SUMMARY - CURATIVE (NOT COMPLETED AS PLANNED) REASON

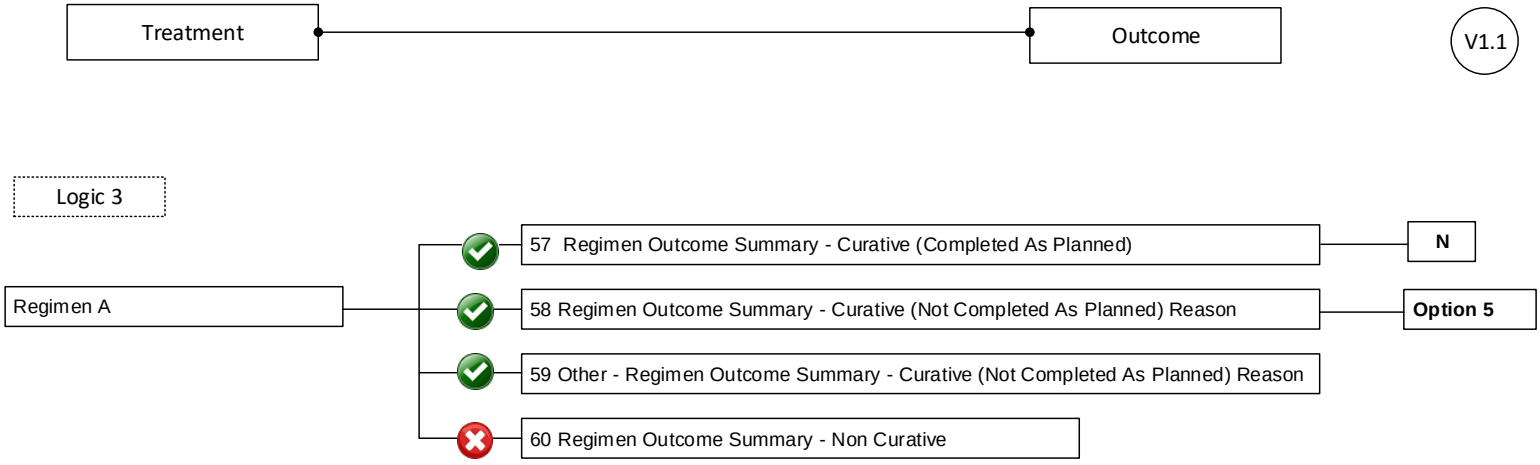
Each regimen will have an appropriate outcome and not all outcomes are applicable to a single regimen.





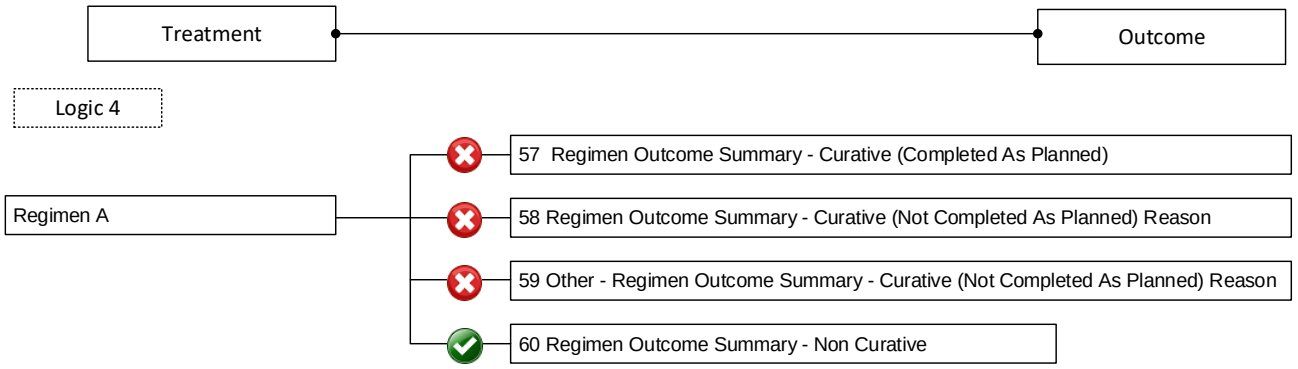
5.3 OTHER - REGIMEN OUTCOME SUMMARY - CURATIVE (NOT COMPLETED AS PLANNED) REASON

Each regimen will have an appropriate outcome and not all outcomes are applicable to a single regimen.



5.4 REGIMEN OUTCOME SUMMARY - NON CURATIVE

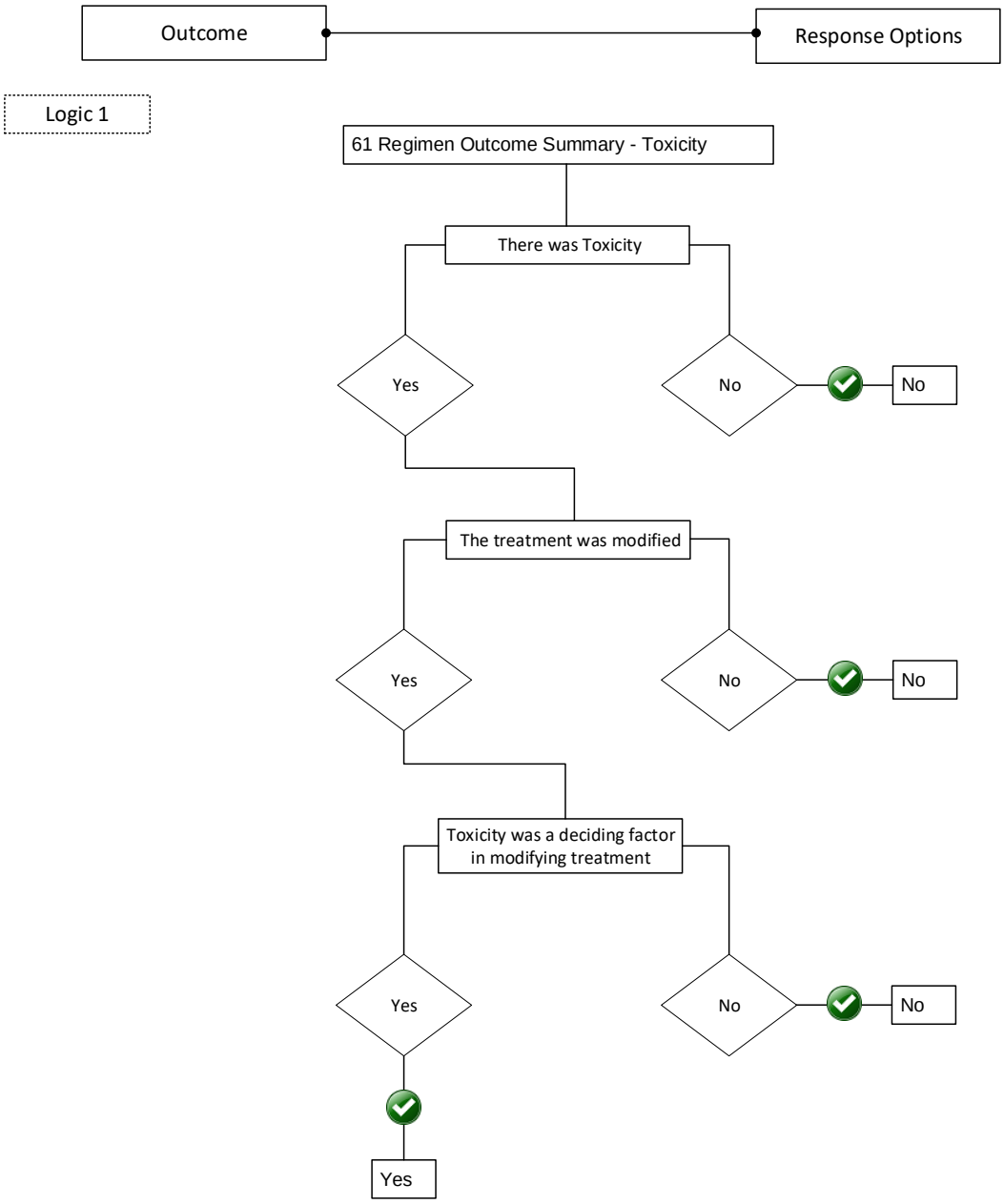
Each regimen will have an appropriate outcome and not all outcomes are applicable to a single regimen.



V1.0

5.5 REGIMEN OUTCOME SUMMARY -TOXICITY

This is a pilot field that is intended to record if Toxicity was a deciding factor in modifying the treatment. We have supplied the following decision tree.



6. TREATMENT CONTINUATION

6.1 INTENT OF TREATMENT - FOR EXISTING V2 REGIMENS

This logic will show how treatment regimen that were created in SACT dataset version 2 can be submitted in the new version 3.0 dataset.

The following logic / mappings will allow the continuation of ongoing treatments to be submitted in new version 3.0.

SACT Dataset version 2		**SACT Dataset version 3.0**		**SACT Dataset version 3.0**	
Treatment Intent response option		#49 Adjunctive therapy response option		#15 Intent of treatment response option	
A	Adjuvant	1	Adjuvant	99	Not Known
N	Neo-Adjuvant	2	Neoadjuvant	99	Not Known
C	Curative	3	Not Applicable	01	Curative - aiming to permanently eradicate disease
P	Palliative	3	Not Applicable	03	Palliative - Aiming to relieve and/or control malignancy related symptoms
D	Disease Modification	3	Not Applicable	05	Palliative - Aiming to delay tumour progression

Note: All new treatment regimens created post dataset version 3 must be created using all new Adjunctive and Intent treatment response options.