SBS V3
Mapping Procedures

OCTOBER 2025

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Purpose

The SBS codes are designed for billing, public health analytics and research services in Saudi Arabia. This code system is used with ICD-10-AM to provide a complete system of coding diseases, injuries, and care throughout healthcare facilities in KSA.

Maps are used to translate data in local systems to the SBS and back. This document explains the general process and specific details for each map produced. The billing focus of these maps means that billing requirements will take precedence when resolving any conflicts in the map.

The purpose of a map must always indicate:

- The precise use case, including the areas of health care and tasks for which the map will be used.
- The reason for using the map
- Benefits expected from using the mapped data
- Stakeholders include implementers (such as vendors) and users of the mapped content.

1.   General Mapping Guidelines

The Scope of the map must be indicated to identify what is and is not included in the map.

2.   Scope of the Map

The versions of the source and target code systems must be indicated, and any areas where there is no overlap are identified and out of scope.

3.   Glossary

Term	Meaning	Comment
Additional data	Data elements outside the code system that are needed to accurately complete the map	These include Age or Sex, but could be extended to include service types, provider types, etc., to simplify the classification system in the future
Individual map	The row entry in the map which represents a single source code/s and singe target code combination	
Map **Synonym: Cross Map**	The table of all individual entries needed to map the source code to the target code	
Mapping	The process of building and maintaining a map	

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Publication	Release of map files and associated documentation for use in a specific situation	
Release Date	The date from which the map file and associated documentation is made available to all users	
Saudi Billing System - SBS		The healthcare intervention code system used in Saudi Arabia is an extension of the Australian Classification of Health Interventions (ACHI) for use in Saudi Arabia.
Source	The code system you are mapping from	
Target	The code system you are mapping to	ACHI to SBS - ACHI is the source and SBS is the target. Maps may be bidirectional.
Use By Date	The date from which this map is to be used	

4.   Data Elements in the map

All maps must include definitions of each column used to differentiate between the various data elements. All must consist of at least:

- The name and version of the source and target code systems
- The codes from each of these systems
- Description/s of the code, particularly the source
- Equivalence to the target, and where a map is bidirectional, also equivalence from the target to the source.
- Resolution notes, which indicate decisions made when the map was not clear
- Map version
- Person building the map (while building only – this is not published
- Additional fields (outside the code system) needed to complete the map (essential in a complex map)

A subset of all data elements will be those needed for implementation. The specific data elements will vary according to the type of map (simple or complex) and the code systems involved.

5. Map Building Procedures

When building a map, a set of documented procedures must be used. In the case of this map, these procedures are essential as the map must be maintained as the SBS code system evolves. Rationales for decisions need to be consistent throughout the map building process if maps are to provide an efficient and consistent tool for data comparisons across services and time.

Steps to building a map:

1. Set up
2. Obtain agreement from the map sponsor on the map purpose
3. Establish a map building team – with a team leader
4. Determine if there are any tools which could assist in automation of the mapping process
5. Establish a map governance group representing all stakeholders
6. Establish decision making process
7. Agree on map build structure and verification required.
8. Test the approach and modify if needed
9. Build map content
10. Regular review of validation
11. Regular resolution of conflict
12. Plan publication
13. Develop implementation guideline for information technology users
14. Publish the map including details of activation (release date)

5.1 Set up

5.1.1   Agreement of the Sponsor

The map's purpose dictates the content needed in the map, the validation required, and the decision-making needed. It will also influence the skills needed in the mapping team. For this reason, the sponsor must agree with the purpose of the map.

The mapping documentation should record that agreement and the date of the agreement.

5.1.2   Establish a Map Building Team

The team members for this map must include the following skills:

Ability to allocate codes correctly using SNOMED CT, including understanding of the SNOMED CT Concept model and definition logic used to define concepts in SNOMED CT.
Understanding of the information model for data captures (action, body structure, etc.),
Ability to allocate SBS codes correctly, including application of coding standards,
Ability to use the map design correctly.
Ability to clearly explain and justify the choice made and participate in constructive arguments.
Ability to follow rationales previously provided to ensure consistency of coding decisions.

Specific additional skills include a mapping project leader – in this project, the leader is Selat. The project leader must be able to communicate clearly and lead discussions for the resolution of conflicts in the map

with the map governance group, and ensure independent decisions are made and that the method of decision making agreed upon is applied consistently.

Team size will be impacted by the amount of verification required. Blind double coding of the map will increase the size of the team by approximately 80%. The more experienced the mapping team, the more quickly and efficiently the map will be built. For this reason, maintaining a core map team can be of great value in a situation where a map is to be maintained.

5.2 Tools for the mapping process

Where computing facilities are available, initial maps can be created by a computer system. The process employed is where the term (description of the code) in the source code system is searched in the target system.

5.3 Establish Mapping Governance Group

When decisions are needed on the map content, a group of key stakeholders must be available to resolve uncertainties and conflicts between the codes to be used. This group should include representatives of each stakeholder group and the mapping team. The mapping team provides insight into the issue to be resolved and will document the agreement reached and the rationale behind that agreement, while the expertise of the stakeholder group is needed to contribute to decisions on the usability of the map for their various use cases. In this case, stakeholders must include payers, providers and CHI. In some cases, clinical expertise is also needed to guide mapping decisions.

The anticipated frequency of meetings and terms of reference should be documented, and a meeting schedule should be established as soon as possible. Where there are no conflicts found to present to the meeting and no other actions to be taken, the meeting should be cancelled. The decision to cancel should be made 1 week before the meeting. Meetings may be virtual.

5.4 Establish decision-making processes

The governance group must document their processes for decision making, what use cases have priority, what level of equivalence is acceptable, and what to do when equivalence is not able to be achieved. For example: if a code exists in SBS but there is no equivalent in SNOMED CT:

- Should the Saudi Arabian SNOMED CT National Release Centre be asked to add the codes required? or
- Should they only be asked to add codes if this is likely to be a clinical issue in health records. It is not logical to add SNOMED CT codes for distance travelled by an ambulance; it is more appropriate that an additional field be used to collect the distance and report the distance with the ambulance usage code. It may take time to introduce these changes in SBS and in data capture systems, but the longer-term objective should always be kept in mind, and work that is not appropriate to SNOMED CT should be avoided.

5.5 Agree on Map Build Structure and Verification

The Governance Group should have the map structure explained and agreement on the structure, including validation approach, should be reached before work on the map begins. There are occasions where the need for additional content will be identified, and if so, this will be brought to the Governance Group to confirm the addition.

Verification methods also need to be agreed upon. Common approaches include

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a) Blind map confirmation – where the mapping of each concept is done twice, and the results are compared. If both mappers produce the same result the entry is considered accurate and no further follow up is done

b) Single mapper with verification of an agreed sample.

- Where the content of the map is not used for clinical care, a less rigorous approach may be acceptable. If acceptable to the governance group this approach may be undertaken, but in that case, it is common practice to use computer matching to evaluate a comparison of the code/s title from the source code to the target to identify any major discrepancies.
- Where there are sections of the map which are particularly important only those pats may require blind map confirmation
- Another approach is to randomly select across the target code system and to undertake blind map confirmation, only moving to complete confirmation if the discrepancies found are above an acceptable level. That level is to be pre-determined.
- Where the team members are new to the target or source code systems, it is best practice to undertake blind map confirmation for a period at the start of the project, and as the members achieve higher rates of matching the blind map confirmation may be concluded.

c) Equivalence
All maps should indicate how close the meaning is between each of the source and target codes. This helps those who use the map to consider the differences that might result from using the map. This equivalence indicator shows whether the target code represents the same meaning as the source code.   The values of equivalence measures used in these maps are:

1. The source code or group of codes in combination represents the same meaning as the SBS code. where there are multiple source codes, all must match for the codes to be equivalent

2: The source code is more specific than the target code (fully inclusive overlap)

3: The source code is best included in this target code, but there are other options (non-inclusive overlap). Concepts such as Other are not present in SNOMED and will be mapped to the general concept, e.g., other procedures would map to procedure.
(When SBS is the source, this is a level 2 equivalence)

4: There is no code in the target system that is similar to the source code group – No overlap

5.6 Test the approach and modify if needed
The approach must be tried, and any updates applied to the process. This is usually undertaken by selecting a sample of the content and mapping that content.

5.7 Validation of map content
All entries where there are queries must be validated and confirmed within the team. This process must reference existing rules for map creation and management.   If a rule is to be changed it must be

considered by the Clinical Coding Advisory Group before it is changed. New rationales may be added when they occur. Changes in rationale should be informed as part of the documentation provided for release of the mapping file for use.

Minimum validation is:

- Blind coded
- Validate all changed content by an independent reviewer

5.8 Resolution of conflict

The conflict list should be provided to the governance group 1 week before the meeting. Agreement needs to consider the purpose of the map and how it will be used. All members' opinions must be sought, as the knowledge of coders, clinicians and users may influence the correct decision. When a decision is reached, the rationale for that decision shall be documented.

> e.g. Statement of the issue: SNOMED CT does not indicate laterality for appendicectomy – one mapper included as right.
>
> Statement of the rationale: where the body has only one of something (such as the appendix) laterality is not coded as the body site implies laterality.

Such rationales should not be changed without substantial reasons and must be applied consistently throughout the map. If the rationales are changed, a review may be needed to identify other places where the change should be applied.

5.9 Plan publication

When the map is nearing completion, publication must be planned. Planning includes:

- Notice to the community that a change is coming. It is highly preferable to set a regular cycle of publication so that all software vendors, users etc. Can plan for the change and be ready in time.
- The date for use of the new map must be set. The map is not to be used before that date and must be used for all situations after that date. Without this national data will not be consistent. Where payment agreements are impacted, this needs to be considered separately and may impact or cause a delay in the release date set.
- Publication package – agreement on what and to whom it is to be released must occur. Usually, the release will include a map and a technical implementation guide which explains how the file is to be used.

It is recommended that anyone or organization wishing to receive these files or who has ever received these files be registered so that communication can be consistent and managed effectively.

6.10 Develop implementation guideline for information technology users

This guide includes detailed data definitions for each element of the map file and instructions for its implementation. The implementation guide should also include licensing requirements such as start dates. Contact details for support should also be clearly stated.

5.11 Publish the map

Publish the map via a Web site requiring registration for users to be able to download. This practice requires you to know who has copies in case a recall is needed and informs these recipients when the next change happens.

6.   SNOMED CT to/from SBS Map

SNOMED CT is designed as a detailed terminology to represent any health concept, including diseases, injuries and interventions, for clinical use. SBS is a classification which groups similar interventions and costs together. While SNOMED CT is intended to be used in health records to support clinical practice, clinical decision making and information sharing between information systems, it can also be used as a base for conversion of data to other code systems for other purposes.

This map is intended to convert SNOMED data in health records to the SBS code system in Version 3. SBS version 3 is a billing system and therefore the intended use of this map is to support billing. As the requirements for billing in Saudi Arabia change to a more value-base-care approach the map will also need to change and may eventually become a map directly from the SNOMED CT detailed content in the record to the billing system used for bundled payments and care, which may reduce the need for a map to an interim representation system such as SBS.

6.1 Scope

Source of the map: SNOMED CT International Release 2023 Dec 01
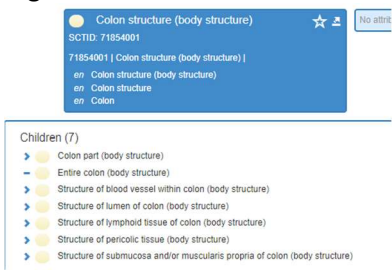Target of the map: SBS version 3 – intervention codes only.

The content in SNOMED CT is more extensive than the content in SBS, but it is likely that some codes in SBS will not yet be present in SNOMED CT.   These two code systems have sufficiently overlapping semantic domain to make mapping meaningful but there are issues in laboratory and non-clinician care.

This will be a complex map as SNOMED CT breaks data into meaningful parts for easier analysis and use. For example: identification of the context of care – inpatient vs ambulatory care may result in a different SBS code or billing amount. The map only includes codes for interventions or codes needed to include the meaning in the SBS code, such as where a diagnosis is included in the intervention description.

6.2 Data Elements

The map data elements for map development and maintenance include:

Data Element	Description	Note
SNOMED CT Context of Care	Where the context of care is not included in the action code and is required the relevant Saudi Arabian code for the type of service shall be recorded and generate an additional row in the map.	
SNOMED CT environment or office or setting	The place where the service takes place (when this is relevant to the SBS code meaning.	

|		
SNOMED CT profession of person undertaking the activity	The person undertaking the activity (when this is relevant to the SBS code meaning)	
SNOMED CT diagnosis/finding	Where a procedure is specific to a diagnosis and that diagnosis is not included in the SNOMED CT procedure code the diagnosis is represented here	
SNOMED CT procedure	The activity undertaken	
SNOMED CT time constraint	Include time constraint where this is relevant to the SBS meaning (e.g. nighttime – out of hours)	
SNOMED CT Qualifier	These codes add meaning to diseases or procedures but don't ever stand alone, such as size, or specific location details or severity	
SNOMED CT Object	The device or thing used in the procedure	
SNOMED CT person upon whom the procedure focused	This represents the person or persons upon whom the procedure was undertaken, or service provided such as a carer.	In this map this data is only relevant where the intervention is not with the patient
SNOMED CT Substance	This includes bodily substances such as urine, or chemical substances that are not products (such as manufactured medications) e.g. penicillin can be a substance found in nature but can also be a medicinal product – SNOMED CT differentiates between these two types.	
SNOMED CT Body Structure	The body site structure upon which this procedure or service was performed, where it is not implied by the activity code. E.g. Appendicectomy does not require a statement of a body site. Where multiple sites are acted upon each structure should be record here, or a parent structure provided with the words 'or child of' e.g. children of colon. 	Optional but required for some specific map entries. Where this field is specified with a value in the map, it is required.
SNOMED CT Laterality	Where the procedure or service can and was undertaken on a body site and laterality is of importance, it shall be entered here for each valid option, generating additional rows in the map.	

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SNOMED CT Method	Where the method or approach of the service or intervention is not included in the action code, and it is required the options shall be entered here for each valid option, generating additional rows in the map	
SNOMED CT Medication	A medicinal substance (product) but not the detail of the actual product name – this is a generic description of the medication	
SNOMED CT Urgency	Where the urgency of the action is not included in the action code, and it is required the relevant code/s shall be entered here for each valid option, generating additional rows in the map	
Additional Map Rule	The cell will indicate the data element to be used and the value to which the map applied. If the entry being mapped meets the field specification and the other codes match, it is a match in the map.	Age <28 D (days) Sex = M (Male)
Equivalence SNOMED TO SBS	Indication of whether the target code represents the same meaning as the source code.	
Equivalence SBS to SNOMED	**1: the source code or group of codes in combination represents the same meaning as the SBS code. where there are multiple source codes, all must match for the codes to be equivalent** **2: the source code is more specific than the target code (fully inclusive overlap)** **3: the source code is best included in this target code, but there are other options (non-inclusive overlap). Concepts such as Other are not present in SNOMED and will be mapped to the general concept e.g. other procedure would map to procedure. (when SBS is the source, this is a level 2 equivalence)** **4: there is no code in the target system which is similar the source code group – No overlap**	
SBS Code	Code with hyphenation	
SBS code long description	Long description of the SBS code being mapped to	
Mapper ID	Identification of the person who prepared this individual map. This information is brought together and compared with alternative entries for the same SBS code prepared by an alternative mapper. This field is not included in the published map	If double blind mapping is being done, this is used to aid learning.
Resolution notes	Notes explaining the rationale to the decision on the correct map content.	
Date of resolution	The date upon which agreement was reached	
Version of the map	The version of this map	

Effective date of the map (use by date)	The date from which this map is to be used	
Source code system version	SNOMED CT International Jan 2024	
Target code system version	SBS v3	

6.3 Procedures for SNOMED CT grammar

The world of EHRs is moving to more atomic data where the data is divided into the parts needed, as this has proven easier for data capture and retrieval and analysis. In the SNOMED CT to / from SBS map the flowing general design has been used rather than true SNOMED CT grammar for simplicity

The diagram below explains the simplified SNOMED CT grammar which has been used in the MAP and is followed by example
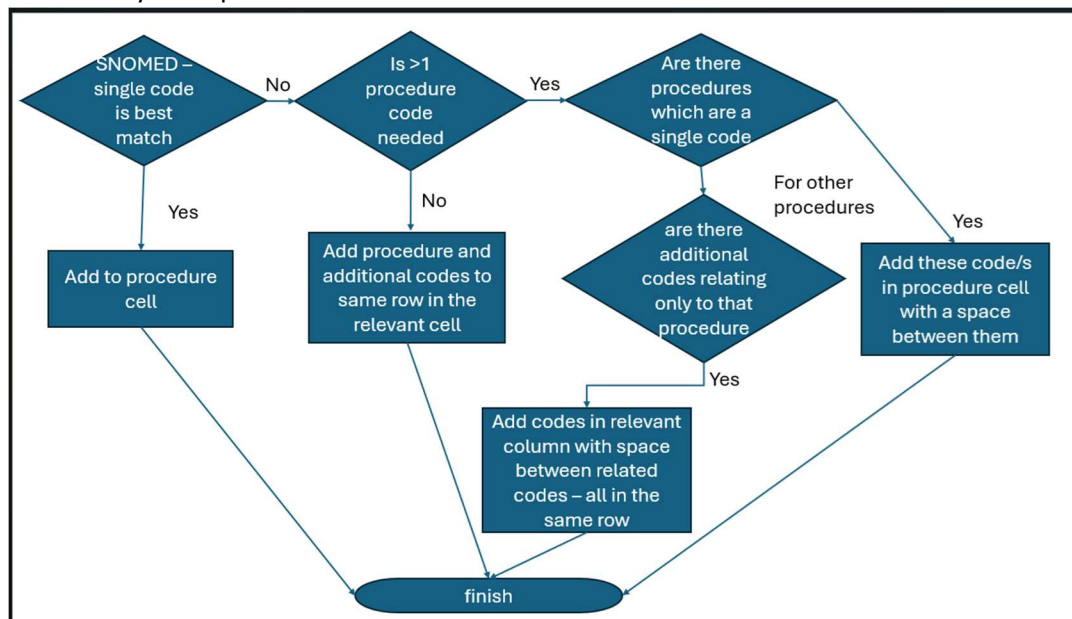
1. If there is a procedure code which includes all details needed – it has been used
2. Where there is no single procedure code to represent what is needed for an SBS concept, such as body part or substance or diagnosis these are included in the same row
   e.g.,
   SBS: 41644-00-02   Excision of rim of perforated tympanic membrane, bilateral
   All the following codes in one row without any carriage returns entered
   Diagnosis   60442001   perforated tympanic membrane
   Procedure 75176001   tympanectomy
   Laterality 51440002   bilateral

3. If there are two single procedure codes needed, these are included in the same cell with a carriage return between them. If the additional codes relate to both conditions these should be added into the relevant column and will be taken as applying to both procedures (e.g. laterality)

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e.g.

SBS 43903-00-00 Replacement of oesophagus using intestine, paediatric

Context: 394537008 paediatric specialty
              Procedures: 307332009 Oesophagectomy and colonic interposition   or
                          307331002 Oesophagectomy and jejunal interposition

The procedures represent alternative codes which meet the same criteria for the target SBS code.

4. If two codes are needed and one requires different additional details, they will be added to the cell after the code which they make more details with a space between them. In this way the extra attributes are clearly for that item (e.g. a diagnosis or a procedure only, not for the procedure after the carriage returns.
    e.g.

SBS 90218-03-00 Percutaneous transluminal coronary angioplasty with embolic protection device, multiple arteries

Procedure 85053006   Percutaneous transluminal coronary angioplasty multiple vessels
Procedure: 38277008   Insertion arterial intraluminal device   233403006   I protective device   This is entered in the cell as 38277008 233403006

5. Where a single procedure code is used but additional codes are needed and one of these extra codes clarifies or qualifies only one of the concepts – put the two related codes into the one field all in one row without any carriage returns.

The example below indicates the fistula was not postoperative to the repair but to something else not indicated in the SBS description.
e.g.
SBS 37833-00-00 Hypospadias for repair of postoperative urethral fistula
        Diagnosis: 14981000 fistula of urethra,   274213002 postoperative fistula
        Procedure: repair of urethral fistula 78072001

Wherever the qualifiers or other items only define part of what is intended, as here, keep the related concepts in one cell together with a space between

6.4 Tools Used
No automation was applied in the creation of this map.

Tools were unlikely to be productive in SNOMED CT to SBS coding as the terms in SBS are often administrative, while those in SNOMED CT are more clinical.

If the SNOMED CT mapping tooling is available, it should be considered for use – this will support SNOMED Concept specification and descriptions but not help with SBS code identification. If the SBS file is the starting point – then SNOMED CT codes must be copy/paste and not hand typed into the map to avoid typographical errors.

It would be useful if a software run could populate the descriptors for the SNOMED CT code so that a manual review could be undertaken. If tools are used the SBS content must include the text associated with the block as the descriptions of the concepts in SBS often lack the detail that is in the heading such as the part of the body involved,

6.5 Validation
Initial map validation

- Laboratory codes in SNOMED CT have mostly been mapped at high level only as LOINC is the usual code system used in Laboratories
- Dental codes have been mapped but consideration of future potential to use SNODENT (the dental part of SNOMED CT – which is free for use in KSA.
- Approximately 30% of all individual rows resulted in queries which were independently reviewed and validated by the team – from which the rules used were developed to ensure consistency of approach
- An additional 30% of entries were randomly selected for validation by an independent mapper.

Note: this map is not intended for patient care use and therefore does not require 100% validation.

The independent mapper may be a suitably qualified person in or outside the mapping team who did not do the original map entry.

Note: While every reasonable care has been taken to ensure the accuracy of this map, it is not reasonable to warrantee or guarantee that the information herein is error-free and thus will bear no responsibility for the results of the use of this product.

A copy of the completed working map shall be kept as these maps provide guidance on areas for classification ongoing improvement and show the origin of mapping rules.

6.6 Implementation Guidance
Implementers need a copy of this document to support their correct implementation of this map.

6.7 Publication preparation
The map file must have the following columns in the published file.   The Map is to be published in .csv format with the following fields.

SNOMED CT Context of Care
SNOMED CT environment or office or setting
SNOMED CT profession of person undertaking the activity

SNOMED CT diagnosis/finding
SNOMED CT procedure
SNOMED CT time constraint
SNOMED CT Qualifier
SNOMED CT Object
SNOMED CT person upon whom the procedure focused
SNOMED CT Substance
SNOMED CT Body Structure
SNOMED CT Laterality
SNOMED CT Method
SNOMED CT Medication
SNOMED CT Urgency
Additional Map Rule
Equivalence SNOMED TO SBS
Equivalence SBS to SNOMED
SBS Code
SBS code long description
Version of the map
Effective date of the map
Source code system version
Target code system version

7.   ACHI to/from SBS map

7.1 Scope

This map shows the relationships between the Australian Classification of Healthcare Interventions 10th Edition (ACHI) and the SBS.

The following areas are included in SBS but are not in ACHI. The codes in SBS from these areas are out of scope (not included in) this map.

- Pathology
- Laboratory,
- Mortuary,
- Ambulance and Transport,
- Emergency Medical Services,
- KSA service codes, which include
  - Room and board services,
  - Services based on location, professional involvement and time used,
  - Package charges services
  - Home care services

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- o Cathlab services
- o Delivery room services
- o Anaesthetic room services

7.2 Data Elements

Data Element	Description	Note
SBS Chapter Number	The number of the SBS chapter	This is used only for reference when mapping, it is not part of the published map
SBS Chapter Description	The textual description of this chapter which indicates the intended content in that chapter	
SBS Block Number	The Block number used to navigate and group concepts in the classification	
SBS code hyphenated	The SBS Source code in the format NNNNN-NN-NN	
SBS Long Description	The full textual title for this concept	
ACHI Chapter Number	The number of the ACHI Chapter	This is used only for reference when mapping, it is not part of the published map
ACHI Chapter Description	The textual description of this chapter which indicates the intended content in that chapter	
ACHI Block Number	The block number used to navigate and group concepts in the classification	
ACHI Code	The ACHI target code in the format NNNNN-NN	
ACHI Description	The descriptive text used as a title for this concept	
Equivalence of ACHI to SBS	Indicating the level of match between the ACHI to SBS code	See equivalence see 6.8 c) above
Equivalence of SBS to ACHI	Indicating the level of match between SBS code to ACHI	
Version of the Map	The version of map between ACHI and SBS	
Effective date of the map (or the use by date)	The date from which this map is to be used (this date is inclusive)	
SBS Code System Version	This map uses SBS V3 version	
ACH Code System Version	This map uses ICD-10-AM 10th Edition	

7.3 Used Tools

Given that SBS codes are an extension of ACHI the map was created automatically by identifying the shared parent (the first NNNNN-NN structure of each code system) and where the final digits in SBS were

–00 the match was considered 1 to 1 (exactly the same), while those that were subsets of ACHI were mapped:

SBS to ACHI 3 (the SBS code is totally included in the ACHI concept)

ACHI to SBS 2 (overlap but not all included in the ACHI concept)

Those concepts which are out of scope (i.e. where concepts in ACHI do not cover the area concerned) the map is 4:4 no map possible in either direction.

7.4 Validation

A manual review of this process was undertaken to confirm correct allocations.

7.5 Implementation Guidance

Implementers need a copy of this document to support their correct implementation of this map.

7.6 Publication preparation

The map file must have the following columns retained in the published version of the map file. The file is published in .csv format.

SBS code hyphenated
SBS Long Description
ACHI Code
ACHI Description
Equivalence of ACHI to SBS
Equivalence of SBS to ACHI
Version of the Map
Effective date of the map (or the use by date)
SBS Code System Version
ACH Code System Version

Appendix 1: Rules applied during mapping

The rules listed here were applied throughout the maps produced and should be used in any future updates to ensure consistency within the map.

Rule No	Issue	Resolution	example
1	Concept cannot be represented with a single concept	Multiple concepts will be used. Where different concepts are in one cell, they are related concepts within the row in which they occur	
2	Administration of agent	If subdermal or subconjunctival code to injection	
3	Site is needed but not provided in the source concept	Code to the clinically most common site	Varicose vein incision – coded to leg Fabrication of mouthguard (coded to athletic mouth guard – though there are other reasons for these devices) - not considered an exact match.
4	Nonclinical concepts – services	e.g. room and board payments. The concept is not clinical care but administrative – it has not been mapped	If special rooms are needed for clinical purposes such as isolation, this will be indicated by a diagnosis code.
6	Code the meaning not the words	A match on wording is not necessary; code the meaning intended.	Endoscopic laser therapy to rectum - in this case surgery is synonymous with therapy and has been mapped to endoscopic surgical procedure on rectum using laser – which represents the same meaning. Identification of = examination
7	Incomplete descriptions in SBS	The mapper is to assume that the block description or ACHI base code provides further information which adds further meaning and can be used in mapping.	97721-00-80 flexible base removable partial denture, per jaw. In this example the ACHI code 97721-00 is provision of partial maxilla denture – the SBS code is assumed therefore to be of the maxillary – and mapped as such

8	Measurement of	The map assumes that the measurement is of a body substance which is the most common for measuring this particular substance. e.g. urine if blood is not mentioned.	
9	Code to parent	When a code is detailed and a match is not found, code to the parent of the concept – in SNOMED CT this means a less specific but still correct match	
10	Emergency Anaesthesia	Map the procedure as an emergency as well as the anaesthesia	
11	Plurality in dentistry	All cases are mapped as singular unless specified otherwise	
12	Diagnosis in laboratory testing	When a laboratory test is observing an organism, the organism is represented in the procedure as this is not a clinician indicating that the organism is clinically significant	
13	Repair	It is not necessary to map a code for repair when the procedure being represented is itself a repair procedure	Repair of axillary vein by interposition graft... This is coded directly to interposition of vein, reconstruction vein using vein graft with body site of axillary vein
14	Clinical knowledge	Application of clinical knowledge is expected when mapping	Pulp is not periodontal, it is inside the tooth

Where investigation identifies that a procedure is always done with contrast, but this is not stated in SBS, it has been mapped assuming the use of contrast. |
| 15 | Age / Sex | This concept should not be represented using SNOMED as it is a data element in the patient's details. Additional map rules are used to represent age or sex rules in the map | |
| 16 | Use the rules of the terminological system | SNOMED CT definitions, and ACHI includes/excludes notes are to be applied when determining if concepts match | |

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17	Code the process	Where the text is unclear whether concept is the procedure or the result of the procedure (such as a measurement or presence of condition) code the procedure. This rule is based on SBS being an intervention code system.	
18	Direct closure	When not otherwise specified direct closure of an artery is coded as suture	
19	Previous procedure	Where a previous procedure for a disease is indicated in the procedural description, the condition is not considered present anymore and therefore is coded as history of the condition	
20	Aspiration	Where aspiration is documented without an access route specified, and percutaneous is an available code – that approach is used in the map.	
21	External fixation	Intermaxillary wiring has been coded as external fixation	
22	Cautery / Diathermy	Cautery and diathermy have been treated as synonyms throughout the maps	
23	Laterality	If laterality is included in both codes, do not indicate it separately	
24	Laterality	SNOMED CT has no defaults and a procedure without laterality is considered unspecified laterality, if laterality is to be represented it must be specifically mapped	e.g. map unilateral if that is what is intended
25	Purpose	The purpose of the procedure does not generally change the procedure and was not included in mapping, unless it impacted the meaning intended	
26	Quantities	Where a code is specified as 'per x) this is assumed to be singular and not included in the map Where a concept indicates multiples this has been mapped	e.g. - per crown - per exposure - per pontic - per canal - per root

27	Needle biopsy	Interpreted as percutaneous unless specified otherwise	
28	Time	General time principles such as past are mapped, but lengths of time should not be captured using SNOMED CT – they should be captured using a duration field - these concepts are not mapped but could be considered as additional rules in the map if needed	e.g. 24 hours but less than 96 hours
29	Replacement	Replacement includes removal of existing device and insertion of a replacement device	
30	Procedure for device	When a procedure such as fitting is documented, this is coded to installation if there is no other information provided	
31	Roux-en-Y	When the details are not provided Roux-en-Y is mapped to gastrojejunostomy	
32	Redundant statements	Where a procedure always includes a process that process is assumed to be included and is not mapped separately	e.g. - viewing of video oculography - Fixed or removable
33	Other	The concept of other is a classification concept, not an ontological one, therefore this concept does not exist in SNOMED CT. Other has been mapped to the concept without consideration of other but is not considered an exact match. In ACHI / SBS this was not an issue	
34	Not otherwise specified	There is no such concept in SNOMED CT – the map was made to the concept described, which will often be the parent of procedures with greater specificity – this is considered an exact match. In ACHI / SBS this was not an issue	

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35	Numbers	In the health record it is best practice to collect actual numbers therefore this information is not captured with a terminology but with a number associated with a specified field. Without these fields in the record a map is not precise.	e.g. < 10 sources
36	Measurement	Where not specified measurement has been mapped as quantitative measurement	
37	Initial visit	appointment status can be obtained from appointment systems - not included in the terminology	