Report from the National Endoscopy Data Standardisation (NEDS) Group

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Contents

1 Summary

Tēnā koutou katoa. This document summarizes the work that NEDS has been under-taking on behalf of the endoscopy community of Aoteoroa New Zealand over the past 6 months. Major roadblocks to progress remain, in particular the political structure of IT services in the our public health service, and the way this stalls timely database upgrades. However, the way forward is becoming clearer.

2 Upgrades of the Provation database

DHB server versions are displayed in figure 1. Provation released version 5.0.490 in October 2021, and will release version 5.0.510 in October 2022. Version 5.0.490 is the version with the latest content that we would prefer DHBs use right now.

Major hurdles to achieving regular upgrade of the database remain, and we are continuing to work to overcome them. If you don't have version 5.0.490 in your unit, you are not able to use data quality improvements that NEDS has implemented, and you are not able to contribute meaningfully to the quality improvement cycle. The more noise that is made nationally to address this problem, the more likely it is to be addressed. Ask to upgrade your database!

Server Location	District Health Board (DHB)	Site Name	Provation Customer ID	Current Provation Update Installed	Years Behind Generally Available (GA) Release
Physical server of location	Regulatory authority		Identifier used when calling Provation support		>2 years is limits the support a site may receive
Christchurch Hospital	Canterbury DHB	Christchurch Hospital	CRCNZ00001	5.0.410.21 HF 1	4
		Ashburton Hospital	CRCNZ00002		4
	Capital and Coast DHB	Wellington Hospital	CCWNZ00001		4
		Kenepuru Hospital	CCWNZ00002		4
	Southern DHB	Dunedin Hospital	SODNZ00001		4
		Southland Hospital	SODNZ00002		4
		Lakes District Hospital	SODNZ00003		4
		Oamaru Hospital	SODNZ00003		4
		Clutha Health First	SODNZ00005		4
		Dunstan Hospital	SODNZ00006		4
	West Coast DHB	Grey Base Hospital	WCDNZ00001		4
		Buller Health	WCDNZ00002		4
	Hawke's Bay DHB	Hawke's Bay	HBDNZ00001		4
	Hutt Valley DHB	Hutt Hospital	HVDNZ00001		4
	Nelson Marlborough DHB	Nelson Hospital	NMDNZ00001		4
		Wairau Hospital	NMDNZ00001		4
	Midcentral DHB	Palmerston North	MCNNZ00001		4
	South Canterbury DHB	Timaru Hospital	SCDNZ00001		4
	Wairarapa DHB	Wairarapa Hospital	WHDNZ00001		4
	Whanganui DHB	Whanganui Hospital	WHBNZ00001		4
Auckland City Hospital	Auckland DHB	Auckland City Hospital	ARDNZ00001	5.0.410.23 HF 3	4
		Greenlane Clinical Center	ARDNZ00002		4
		Starship Children's Hospital	ARDNZ00003		4
	Counties Manukau DHB	Middlemore Hospital	ARDNZ00004		4
		Auckland Manukau SuperClinic	ARDNZ00005		4
	Waitemata DHB	Auckland North Shore Hospital	ARDNZ00006		4
		Auckland Waitakere Hospital	ARDNZ00007		4
	Northland DHB	Whangarei Hospital	NDHNZ00001		4
		Kaitaia Hospital	NDHNZ00002		4
Taranaki Base Hospital	Taranaki DHB	Taranaki Base Hospital	TBHNZ00001	5.0.470.23 HF 1	4
	Bay of Plenty DHB	Tauranga Hospital (Bay Of Plenty DHB)	TBHNZ00002		1
		Whakatane Hospital	TBHNZ00003		1
	Lakes DHB	Rotorua Hospital (Lakes DHB)	TBHNZ00004		1
		Taupo Hospital	TBHNZ00005		1
Waikato Hospital	Waikato DHB	Waikato Hospital	WAINZ00001	5.0.430.26 HF 2	3
		Thames Hospital	WAINZ00002		3
		Gisborne Hospital	WAINZ00003		3
	Tairawhiti DHB	Waikato DHB – Paediatric Surgery	WAINZ00004		3

Figure 1: Server versions of Provation in Aoteoroa New Zealand – as of April 2022.

3   Data coding within Provation

3.1   Datapoint changes

The following changes within the Provation database have been discussed and addressed through NEDS over the past 6 months. Each one is listed with its status in the database upgrade cycle.

1. Common Person Number. *Change included in Provation 5.0.510*

   A second field has been added to the Provider data entry form, designed to take each provider's common person number (CPN). This is a 6 character string containing 2 numbers and 4 letters. One CPN is assigned by the Ministry of Health to each health provider in Aoteoroa New Zealand (both nurses and doctors).

   This field will allow linking of procedures performed by individuals with multiple identities within Provation. It also will allow the current interface between Provation and Hospital Patient Administration databases to continue, allowing digital sign-off of reports, updating of systemwide passwords, and other interface activities to continue. In figure 2 the form for entering data is shown – consider that "Provider NPI" will read "Provider CPN".

2. Trainee categories. *Change earmarked for Provation version 5.0.530*

   The current dropdown list for "trainee" within Provation contains many terms that are not used in Aoteoroa New Zealand. These will be changed to *Gasteroenterology Registrar, Surgical Registrar, Gastroenterology Fellow, Surigcal Fellow, Training Nurse Endoscopist, Other*. Please see figure 3.

3. Referring Physician. *Change earmarked for Provation version 5.0.530*

   The current dropdown list for "staff" within Provation contains the terms "Referring Physician", "Ordering Provider", "Requesting Provider". These are terms that are specific to billing in an environment outside of Aoteoroa New Zealand. The term "Referring Physician" will be retained, and "Ordering Provider" and "Requesting Provider" will be removed.

4. Extent of examination. *Work in progress*

   The current setup in Provation is to present, to the endoscopist entering data, the dropdown list shown in figure 4. NEDS has considered how these options are presented, and feel that recording of extent is adequate where the caecum, ileum or ileocolonic anastamosis is reached. Where the extend is short of the

Figure 2: Data entry form for CPN, Provation version 5.0.510

Figure 3: Data entry form for trainee, earmarked for Provation version 5.0.530

caecum, NEDS considers the data is presented in a way that may lead to poor data recording. This datapoint is required to allow calculation of caecal intubation rate - procedures in which caecal intubation was not attempted (eg. resection of previously identified polyp) need to be removed from the denominator in this calculation.

Currently within Provation an endoscopist needs to chose between three terms to record this: *Incomplete procedure, Aborted procedure, Intentionally abbreviated procedure*. NEDS considers that there is varying interpretation of what these three terms mean, and when they should appropriately be used, and that this may lead to poorly recorded data.

NEDS has requested that at this part of data entry, Provation presents a simple list of extent from anus to ileum. If extent is recorded as not complete (short of the caecum or ileocolonic anastamosis) then a dropdown of reasons why the examination was not complete is presented. Provation have responded that the current presentation of datapoints has many dependencies in the database, and cannot be easily changed, therefore this change is not on the agenda any time soon. In the interim NEDS will attend to defining which of the options within this datapoint correspond to an incomplete colonoscopy (initial intent was to reach caecum or further), and which correspond to a procedure in which there was never an intent to reach the caecum. Watch this space.

5. Extent of examination: 2nd consideration. *Work in progress*

    When documenting extent of a complete procedure within Provation, many options are presented. EGGNZ considers a complete procedure to involve intubation of the caecum, and identification of the appendiceal orifice. To this end endoscopists are encouraged to identify the appendiceal orifice during a colonoscopy, and to record that they have identified it. This means "Caecum – Caecum identified by Appendix and IC valve" documents a complete colonoscopy, while "Caecum – Caecum identified by IC valve" does not. 4 That "Terminal Ileum – Caecum identified by Appendix" documents a complete colonoscopy, while "Terminal Ileum" does not.

    Performance of a complete colonoscopy in Aoteoroa New Zealand, in the future, will require documentation of identification of, and visualisation of, the appendix. If you are not doing this now, please ensure that you change to visualising the appendix during each colonoscopy,and that you document that you are doing it.

6. Paris Classification. *Change included in Provation 5.0.510*

    Within "Findings" node, definitions of Paris Classification added to dropdown list to aid classification. This includes the classification "1sp". (figure 5)
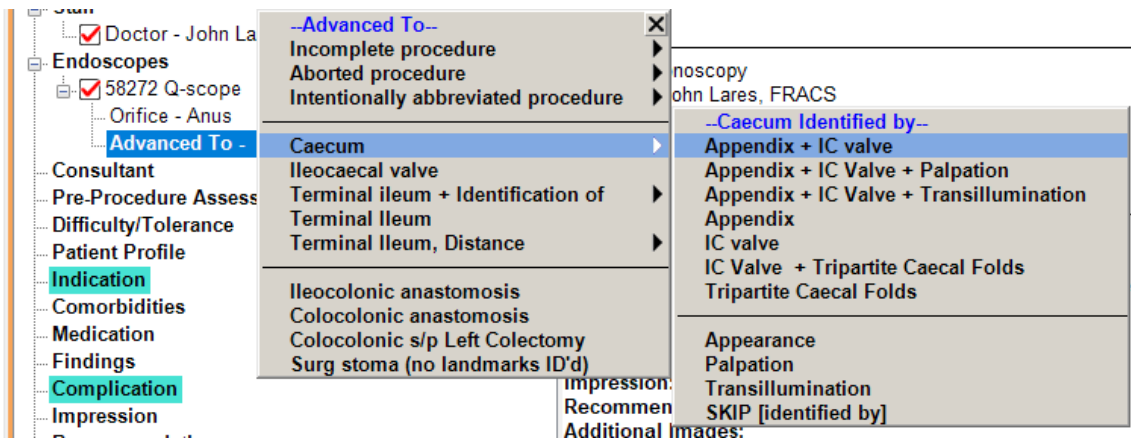
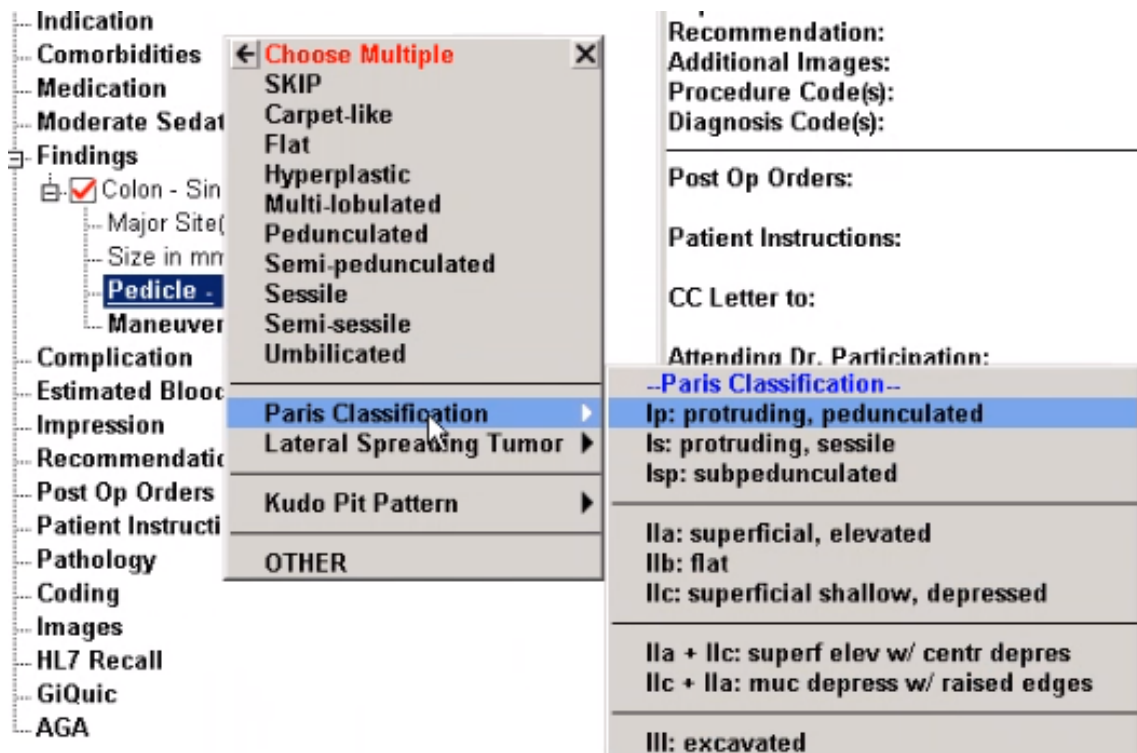Figure 4: Current presentation of recording of extent within Provation, versions 5.0.490 and below

Figure 5: Presentation of short definitions of Paris classification, versions 5.0.510 and beyond

7. NICE polyp classification. *Change included in Provation 5.0.510*

   Within "Findings" node, below Paris Classification, the NICE classification, with definitions, will be added.

8. Boston Bowel Preparation Score (BBPS). *Change included in Provation 5.0.510*

   Definitions for the BBPS will be added to this dropdown list. These are reasonably long, and will not be added directly to the list. Instead, they will be added to an option at the bottom of the list titled "Definitions". Endoscopists who are unsure of the definition of the BBPS will be able to quickly reference this.

9. Glouchester Comfort Score (GCS). *Change included in Provation 5.0.510*

   Definitions for the GCS will be added to this dropdown list. These are also reasonably long, and will not be added directly to the list. Instead, they will be added to an option at the bottom of the list titled "Definitions". Endoscopists who are unsure of the definition of the GCS will be able to quickly reference this.

10. Change "NZ Familial GI Cancer Registry" to "NZ Familial GI Cancer Service". *Change included in Provation 5.0.510*

11. Recording of family history of bowel cancer. *Change included in Provation 5.0.490 and beyond*

    NEDS want everyone recording the presence or absence of a family history of bowel cancer in the same way. The "NZ FH CRC" dropdown list is the datapoint that we would like used. Note that definitions of the categories may be viewed by hovering over the "Definitions" node at the bottom of the list. This dropdown list has had added to it "FH bowel cancer unknown (eg. adopted)", and "No FH of bowel cancer". The order of the categories will change from as is current (highest risk to lowest risk) to the opposite (lowest risk to highest risk). This is because the majority of patients will have a low risk family history of bowel cancer. See figure 6

12. Change name of "Fellows Endoscopic Skills" node to "Trainees Endoscopic Skills". *Change not yet scheduled*

Figure 6: NZ FH CRC dropdown list, versions 5.0.490 and beyond

13. "Trainees Endoscopic Skills" functionality. *Change not yet scheduled*

This change request is to ensure recording of trainee data is completed for every procedure in which a trainee is involved. Currently within Provation the "Fellows Endoscopic Skills" node is prompted if a fellow is entered in the staff node. If a registrar is entered, the node is not prompted. NEDS considers that there are two major risks for poor data entry of trainee data. The first risk is of a trainee not being entered in the staff node of a procedure that he/she participated in. The second risk is of the "Fellows Endoscopic Skills" node not being filled out, despite the trainee being entered in the staff node.

The request is made to ensure that if a trainee is present that they are entered in the staff node, and, if a trainee is entered in the staff node then the "Fellows Endoscopic Skills" node is completed.

The request is to create a new node: trainee involved in procedure *(y/n)* that is mandatory. If this node is filled *y*, then the trainees node must have an entry (entry of a trainee as involved in the procedure), and fellows endoscopic skills must be filled.

This request will require recording that a trainee is not involved in the procedure, in all procedures where no trainee was involved. NEDS considers that this is a reasonable request to make of our endoscopy community, in exchange for excellent recording of trainee data. Provation are not able to make this change at this point to a node which has many dependencies. NEDS will continue to work with Provation to improve recording of trainee endoscopy activity.

3.2 Preferences within Provation

NEDS has designed two 'preferences' for colonoscopy within Provation that will guide endoscopists through data entry, capturing required datapoints. These have been present and operational on the Canterbury, Taranaki and Waikato Provation servers over the past year. In version 5.0.510 these preferences will be shipped with the database, will be available to all, and will be hardwired (cannot be changed). There is one preference for NZ bowel screening programme colonoscopy, and one for all other colonoscopy. They both prompt recording of BBPS, GCS, and "Fellows Endoscopic Skills". The NZ bowel screening programe preference also automatically records "NZ Bowel Screening Programme Colonoscopy" as the indication, prompts correct recording of a family history of bowel cancer, and automatically provides the following patient advice: " Please inform the local Bowel Screening Lead or the colonoscopist who performed this procedure (on the first working day) if this patient presents with a suspected colonoscopy related complication within 30 days of this colonoscopy". See figures 7 8
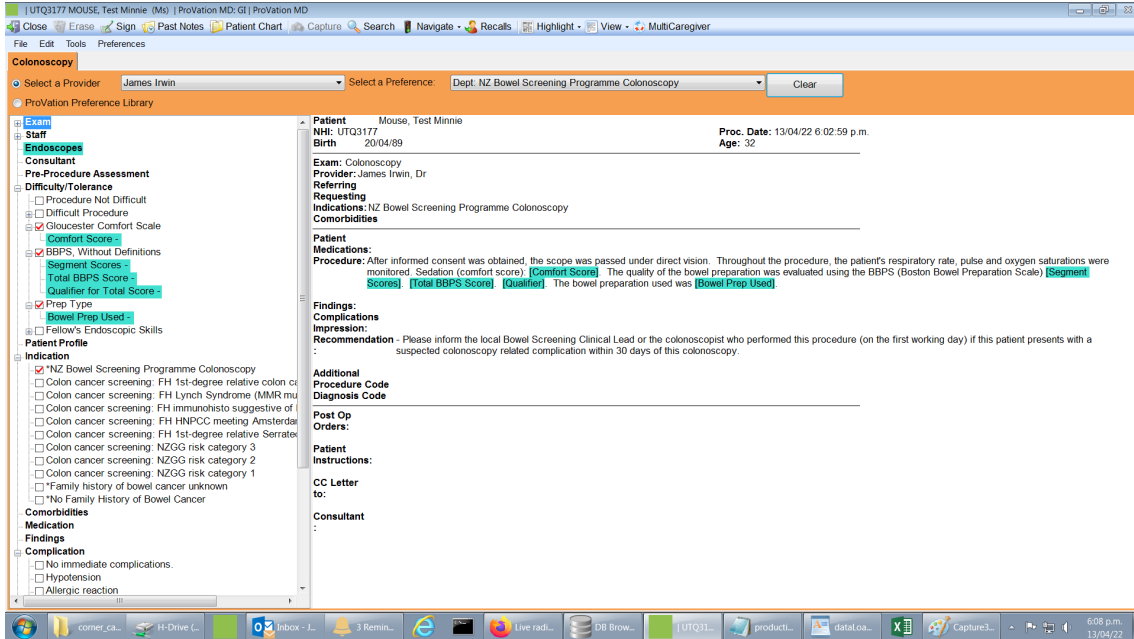
Please encourage use of these preferences.

Figure 7: NZ bowel screening colonoscopy preference, upper part.
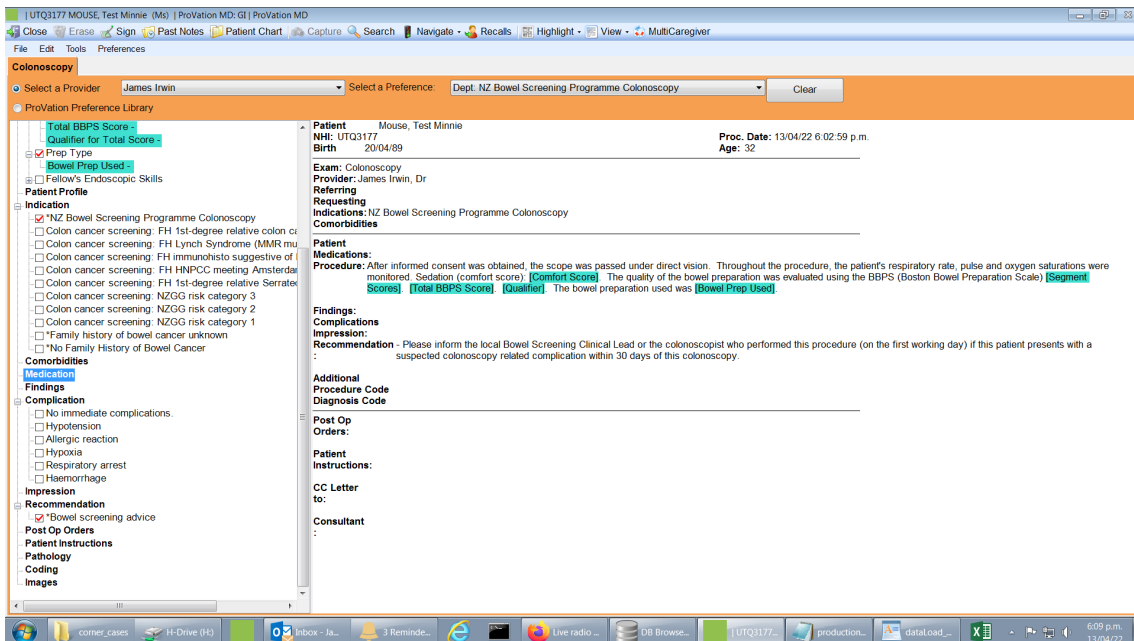

Figure 8: NZ bowel screening colonoscopy preference, lower part.

4 Identities

There are often multiple identities for individuals within the Provation database. This occurs across sites, and also within sites. The multiple identities are generated by the interface between Provation, and various PMSs (Patient Management Systems). If second or third identities are removed, they are soon regenerated.

Our approach for this problem is to create a second identity field, which will be filled with the endoscopist's CPN (Common Person Number). This will allow identities to be merged if they are for the same person. At this point the datapoint is not going to be forced – however we will require each centre to ensure that this number is recorded against each endoscopist, and each trainee. This change will be present in version 5.0.510.

5 Documentation of Registrar Endoscopy Training

NEDS is working closely with the Conjoint Committee to look to provide a trainee log of endoscopy activity within Provation. The major hurdles to this occurring are:

- Robust recording of identity within Provation

- Reliable capture of trainee involvement in each endoscopy procedure performed.

These problems are being adressed within the Provation upgrade cycle, and we have developed solutions for them that we consider will work. However, the implementation of these solutions is dependent on DHBs upgrading their Provation servers to the latest version. Until this time it is not fair for the Conjoint Committee to ask trainees to rely on Provation to record their training data, and trainee logbooks will be not be within Provation.

6 National Standard for coding of Key Performance Indicators (KPIs) when reporting colonoscopy

We have drafted and ratified a standardisation document for reporting of colonoscopy in Aoteoroa New Zealand. This document states all datapoints that are required for documentation to meet this standard, and states how the datapoints are to be coded. The medium term goal is to require endoscopy reporting systems that are operating in our country (such as Provation) to record data in a way that is able to provide a data output in this format. These datapoints are included both to allow standardised reporting on KPIs for endoscopists, and to allow extraction of trainee endoscopist

logbook data. This document is likely to change in the future, as KPIs for reporting on colonoscopy quality change. This document is attached to this communication, and will be available on the NZSOG website.

7   MEMBERSHIP

We thank Jeanette Shaw for her expertise and her contribution to NEDS over the past 2 years as our NZ Gastro Nurses representative. Jeanette is changing tack in life and leaving the endoscopy room for the milking shed. Good luck and thank-you Jeanette. We also thank Jenny Wong, who has contributed to NEDS as our DHB IS representative over the past 2 years. Jenny works for the Canterbury DHB Information Services, and in her work there has moved away from managing the Provation server.

We are delighted to welcome Holly Weale to NEDS as our nursing representative. Holly is part of the NEQIP team, works in the Christchurch endoscopy unit and is also the secretary for the NZ Gastro Nurses committee. We look forward to your contribution Holly.

We are currently looking to appoint a DHB Information Services representative to NEDS.

Our current membership is:

- Nicola Griffiths *(Nurse Endoscopist, Waikato)*

- James Irwin *(Chair; Gastroenterologist in Palmerston North)*

- April-Mae Marshall *(Secretarial Support; Executive Officer, NZSOG)*

- Susan Parry *(National Bowel Screening Programme)*

- Marius van Rijnsoever *(Gastroenterologist, Waitemata)*

- Magda Sakowska *(NZ association of General Surgeons representative)*

- Russell Walmsley *(Gastroenterologist, Waitemata; EGGNZ representative)*

- Holly Weale *(NZ Gastroenterology Nursing representative)*