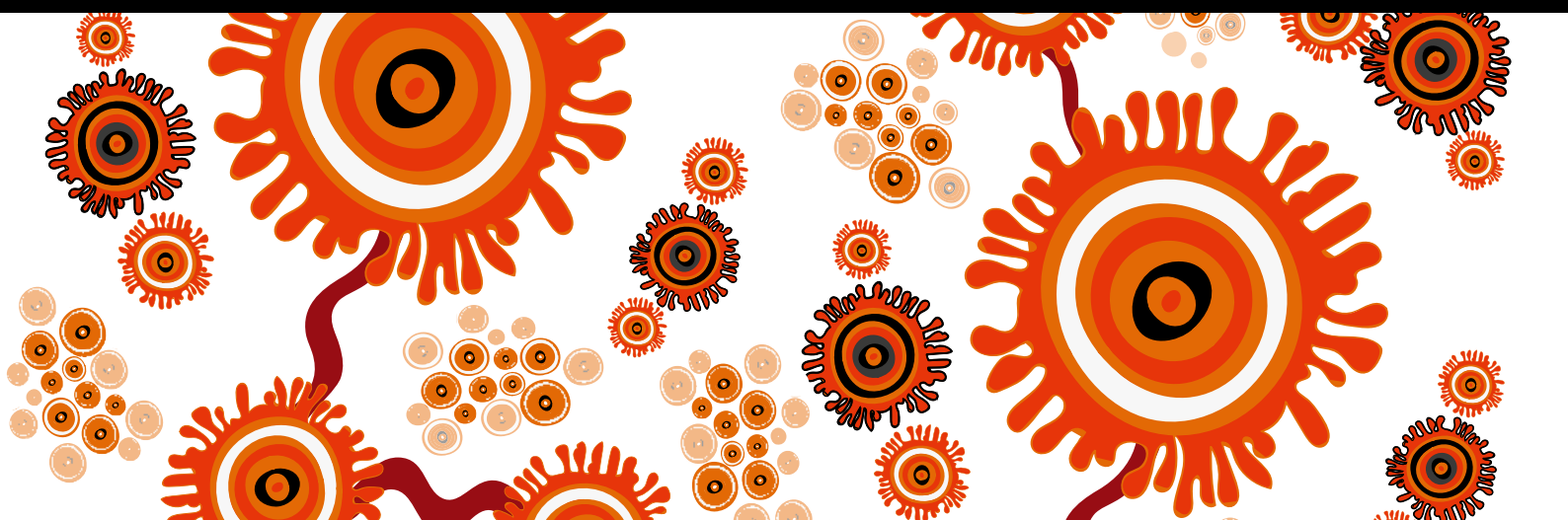


COMMUNICARE ADMINISTRATOR MANUAL

VIRAL HEPATITIS



ashm

Supporting the HIV, Viral Hepatitis
and Sexual Health Workforce



Aboriginal Health Council
of South Australia Inc.

'Our health, our choice, our way'

Communicare acknowledgement: Communicare acknowledges the business intelligence and product development shared through respectful partnerships spanning more than 20+ years in the Aboriginal Community Controlled Health and medical services sector and looks forward to evolving Communicare as the state of the art primary health care system in the national effort to reduce health inequality and close the gap in a generation

www.communicaresystems.com.au.

This manual has been developed to enable health services using the Clinical Information System–Communicare, to make the changes necessary to be able to implement the **Communicare User Manual–Viral Hepatitis**.

ACKNOWLEDGEMENTS

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ARTIST BIOGRAPHY

Allan Sumner

Born in 1975, Allan is a decedent of the Ngarrindjeri people who come from the lower Murray and the lakes of the Murray River along the Coorong of South Australia. He is also decedent of the Kurna people from Adelaide the plains region and the Yankunytjatjara people from central Australia. Allan is a visual and graphic artist, who has also had extensive experience working in the health sector as an Aboriginal health professional, a facilitator of cultural tours, and provider of various workshops in schools and community groups where he teaches Aboriginal arts and culture.

ABOUT THE ARTWORK

“WARRIAPPENDI” (Look Seek Find)

Warriappendi is a Kurna word meaning to “Look Seek or Find”.

Artwork description: The artwork “Warriappendi” tells the story of how blood borne viruses such as hepatitis B and C can travel through the blood, and the importance of testing so appropriate care can be provided.

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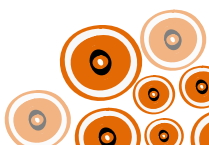
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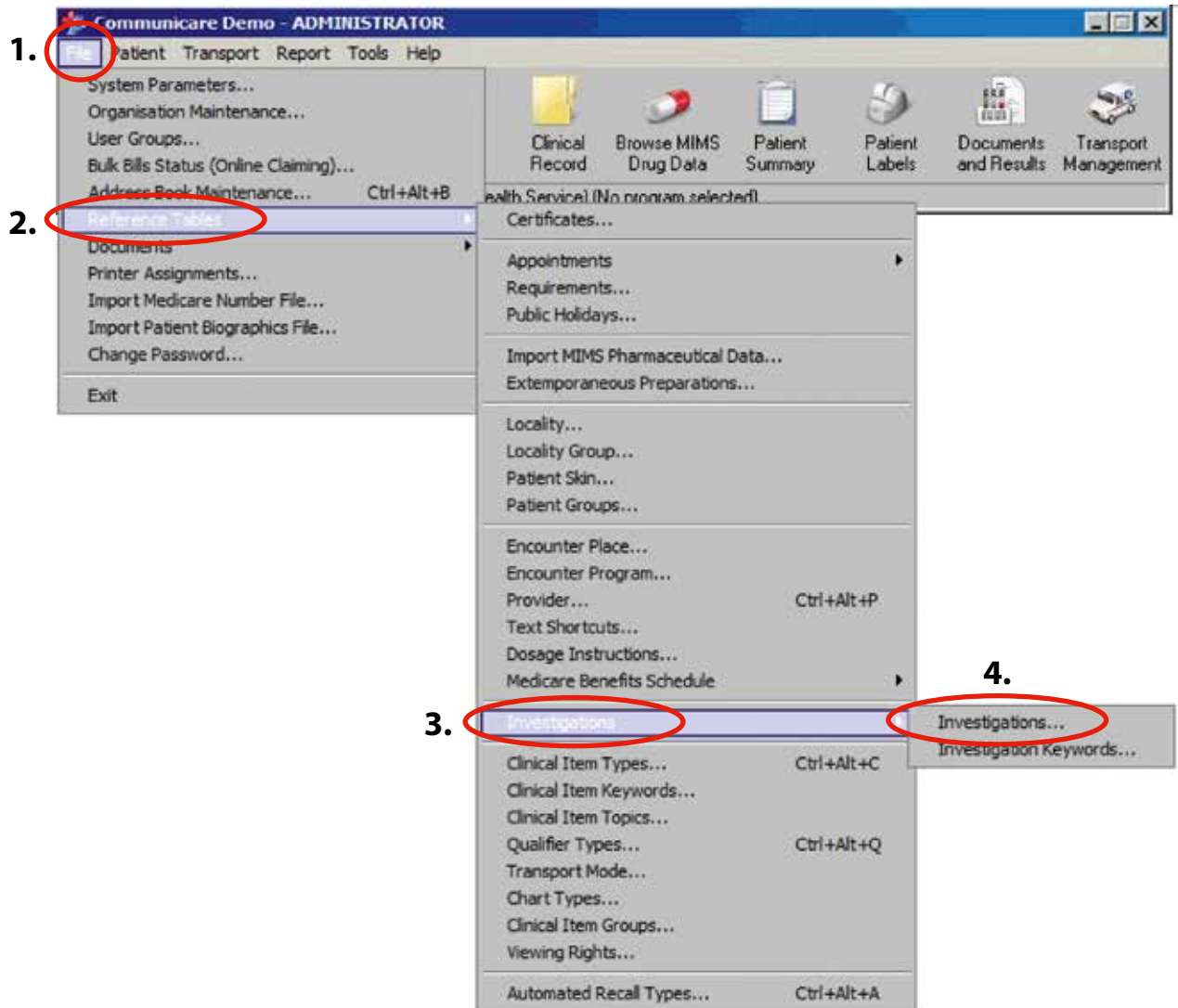
DISABLING INVESTIGATIONS

There are specific tests required relating to the screening and management of viral hepatitis. This may mean you will need to create some and disable others to ensure consistency with the investigation types requested by providers. Those investigations available centrally in Communicare you need to disable are;

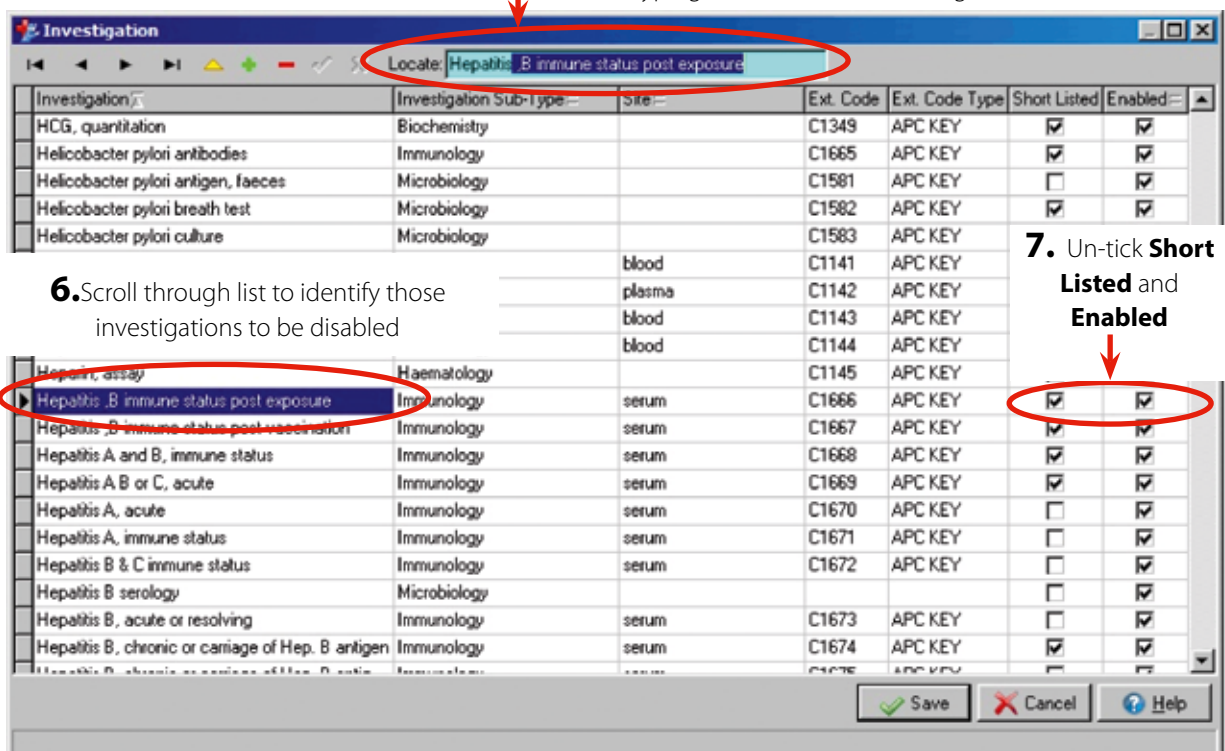
- Hepatitis B, immune status post exposure
- Hepatitis B, immune status post vaccination
- Hepatitis A and B, immune status
- Hepatitis A B or C, acute
- Hepatitis A, acute
- Hepatitis A, immune status
- Hepatitis B & C immune status
- Hepatitis B serology
- Hepatitis B, acute or resolving
- Hepatitis B, chronic or carriage of Hep. B antigen
- Hepatitis B, chronic or carriage of Hep. B antigen–supplementary
- Hepatitis B, resolving
- Hepatitis C antibody supplementary
- Hepatitis C serology
- Hepatitis C, detection
- Hepatitis D, acute or chronic
- Hepatitis, chronic viral
- Hepatitis, serology in pregnancy

You may need to consider disabling additional investigations that have been created locally.

Follow steps 1–9 for each investigation to be disabled;



5. Start typing the name of the investigation



8. Continue until all listed Investigations are disabled

The screenshot shows a software window titled "Investigation" with a table of medical investigations. The table has columns: Investigation, Investigation Sub-Type, Site, Ext. Code, Ext. Code Type, Short Listed, and Enabled. The row "Hepatitis B immune status post exposure" is highlighted in yellow. A red arrow points to the "Enabled" checkbox for this row, which is currently checked. Another red arrow points to the "Save" button at the bottom of the window.

Investigation	Investigation Sub-Type	Site	Ext. Code	Ext. Code Type	Short Listed	Enabled
HBV DNA viral load	Immunology	serum			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HCG for diagnosis of pregnancy	Biochemistry		C1768	APC KEY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HCG, quantitation	Biochemistry		C1349	APC KEY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HCV RNA viral load & genotype	Immunology	serum	C1679	APC KEY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Helicobacter pylori antibodies	Immunology		C1665	APC KEY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Helicobacter pylori antigen, faeces	Microbiology		C1581	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Helicobacter pylori breath test	Microbiology		C1582	APC KEY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Helicobacter pylori culture	Microbiology		C1583	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Heparin antibodies	Haematology	blood	C1141	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Heparin cofactor II	Haematology	plasma	C1142	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Heparin induced thrombocytopenia	Haematology	blood	C1143	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Heparin neutralisation	Haematology	blood	C1144	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Heparin, assay	Haematology		C1145	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hepatitis B immune status post exposure	Immunology	serum	C1666	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hepatitis B immune status post vaccination	Immunology	serum	C1667	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hepatitis A and B, immune status	Immunology	serum	C1668	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hepatitis A B or C, acute	Immunology	serum	C1669	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hepatitis A, acute	Immunology	serum	C1670	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hepatitis A, immune status	Immunology	serum	C1671	APC KEY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hepatitis B & C immune status	Immunology	serum	C1672	APC KEY	<input type="checkbox"/>	<input type="checkbox"/>

Buttons:

9. Click **Save** when all those Investigations listed have been disabled

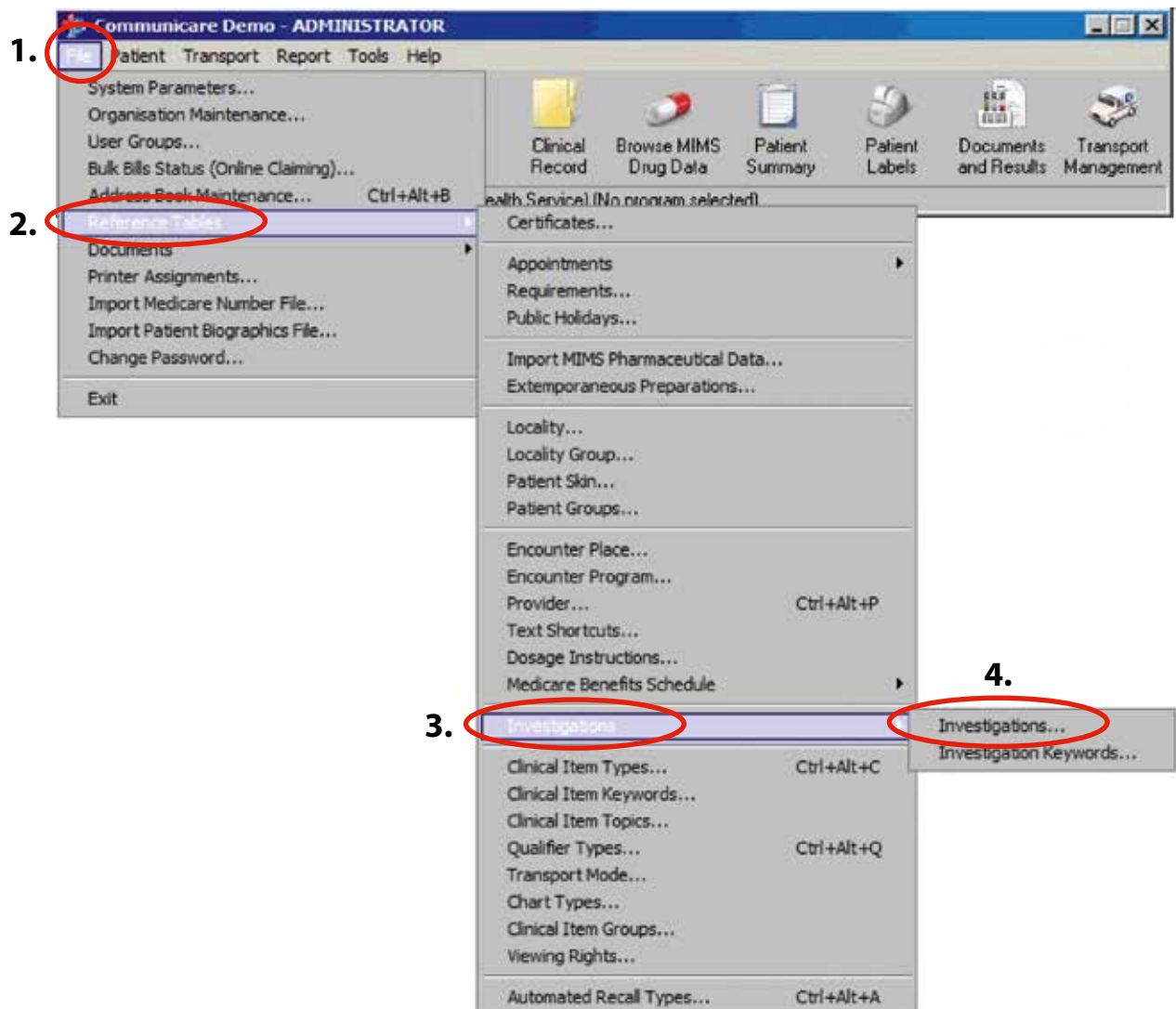
CREATION OF INVESTIGATIONS

To ensure laboratories perform the specific tests required, there are investigations requiring creation.

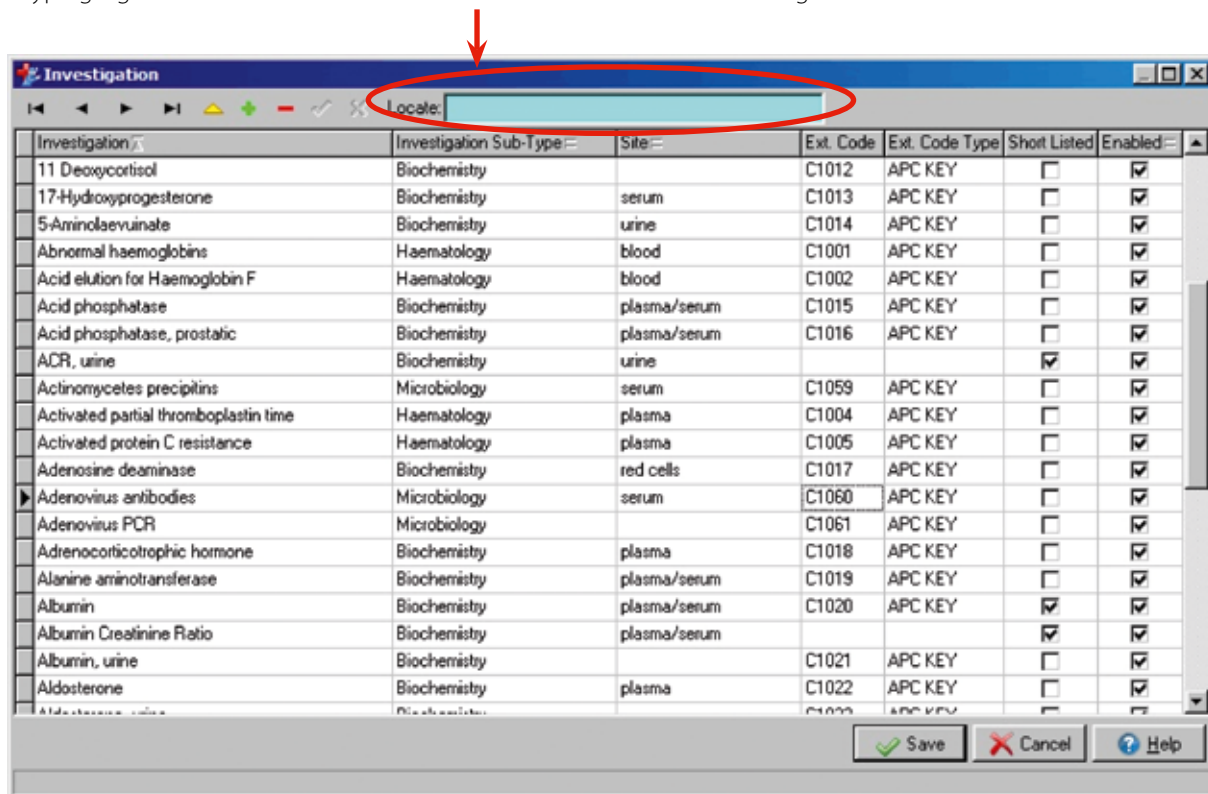
You will need to check whether the specific tests below have already been created at the local level;

To do this, follow Steps 1–5 for each of the investigations listed below;


- Anti-HAV
- HAV IgG
- Anti-HBc
- HBV DNA viral load
- Anti-HBe
- HBeAg
- HBsAg
- Anti-HBs
- Anti-HCV
- HCV RNA viral load & genotype
- Anti-HDV
- Liver function tests including AST
(**Investigation Sub-Type** {Step 8} for this investigation is Biochemistry)

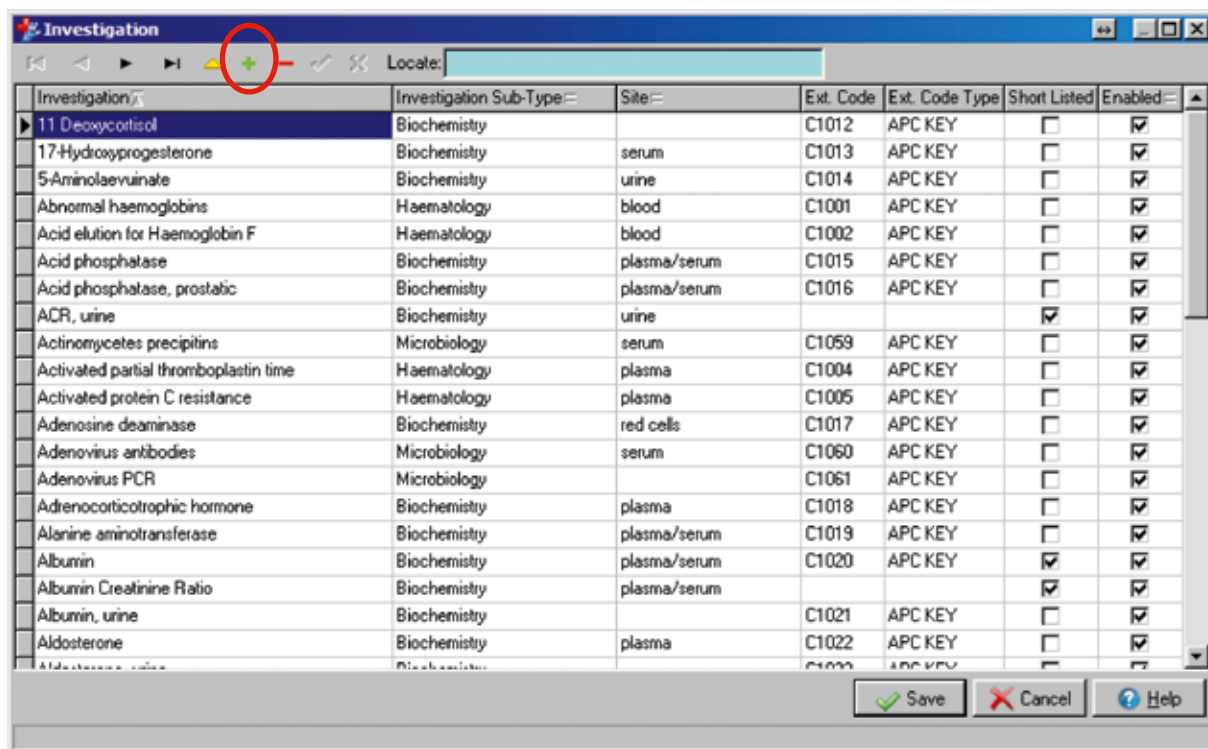


5. Start typing e.g. "Anti-HAV" in the **Locate** search box. Check each of the investigations on the list.



If investigations listed on p.7 have not been locally created, you will need to create them.
Follow Steps 1–4 on p.7 (skip Step 5 above) and continue with Steps 6–12 as below;

6. Click  to add an investigation



7. Enter name of **Investigation** e.g. **Anti-HAV**

8. Choose **Immunology** from the **Investigation Sub-Type** drop box

The screenshot shows a software interface for managing investigations. At the top, there's a title bar 'Investigation' and a 'Locate:' field. Below is a table with columns: Investigation, Investigation Sub-Type, Site, Ext. Code, Ext. Code type, Short Listed, and Enabled. The first row is highlighted in green and circled in red. Red arrows point to the 'Investigation' column, the 'Investigation Sub-Type' dropdown, the 'Site' column, and the 'Short Listed' and 'Enabled' checkboxes. At the bottom, there are 'Save', 'Cancel', and 'Help' buttons. The 'Save' button is circled in red.

Investigation	Investigation Sub-Type	Site	Ext. Code	Ext. Code type	Short Listed	Enabled
* Anti-HAV	Immunology	serum			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
11 Deoxycortisol	Biochemistry		C1012	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17-Hydroxyprogesterone	Biochemistry	serum	C1013	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5-Aminolaevuinate	Biochemistry	urine	C1014	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Abnormal haemoglobins	Haematology	blood	C1001	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Acid elution for Haemoglobin F	Haematology	blood	C1002	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Acid phosphatase	Biochemistry		C1015	APC KEY		
Acid phosphatase, prostatic	Biochemistry		C1016	APC KEY		
ACR, urine	Biochemistry					
Actinomyces precipitins	Microbiology	serum	C1059	APC KEY		
Activated partial thromboplastin time	Haematology	plasma	C1004	APC KEY		
Activated protein C resistance	Haematology	plasma	C1005	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Adenosine deaminase	Biochemistry	red cells	C1017	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Adenovirus antibodies	Microbiology	serum	C1060	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Adenovirus PCR	Microbiology		C1061	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Adrenocorticotrophic hormone	Biochemistry	plasma	C1018	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Alanine aminotransferase	Biochemistry	plasma/serum	C1019	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Albumin	Biochemistry	plasma/serum	C1020	APC KEY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Albumin Creatinine Ratio	Biochemistry	plasma/serum			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Albumin, urine	Biochemistry		C1021	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Alkaline phosphatase	Biochemistry	plasma	C1022	APC KEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>

9. Type "serum" in the **Site**

10. Make sure 'Short Listed' and 'Enabled' boxes are ticked

11. Click  to add another Investigation and repeat Steps 6-10

12. Click **Save** when all Investigations have been added

CREATING AN INVESTIGATION KEYWORD

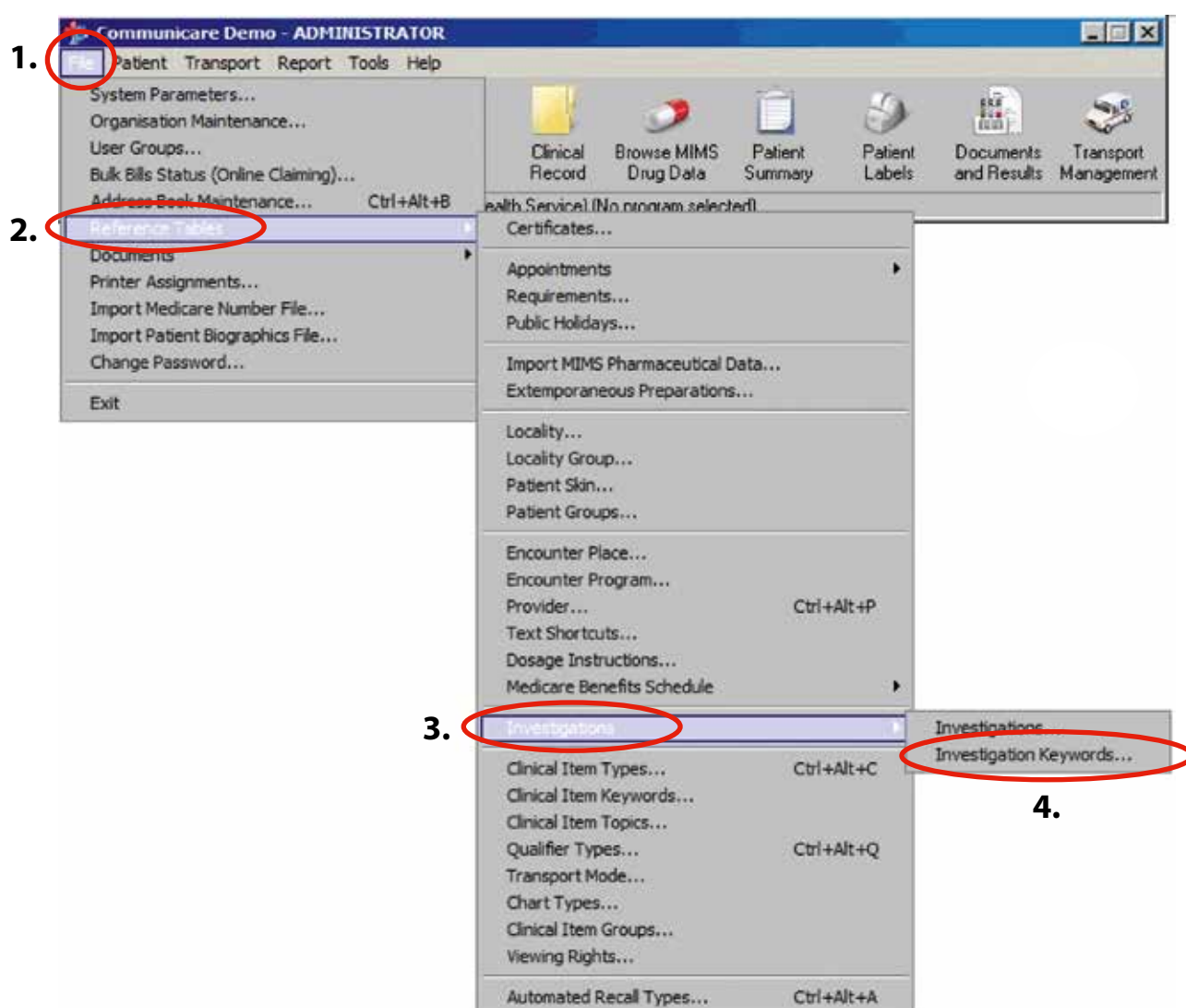
To enable the automated selection of investigations from within a clinical item (to be covered later in this manual) keywords need to be added.

The following keywords require creation;

- HepatitisScreen
- HepatitisBclinicalreview
- HepatitisCfurthertests

You will need to check whether these investigation keywords have already been created at the local level.

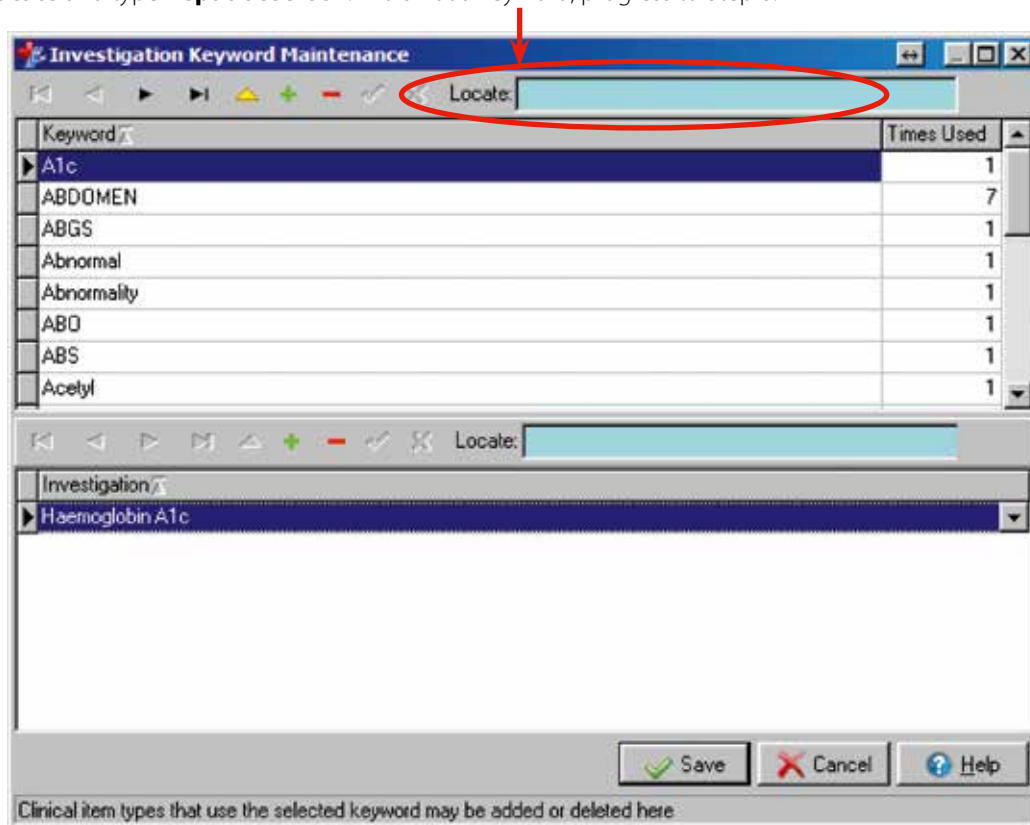
To do this, follow Steps 1–5 for each of the keywords listed;



Using the example of the Investigation Keyword "Hepatitisscreen"

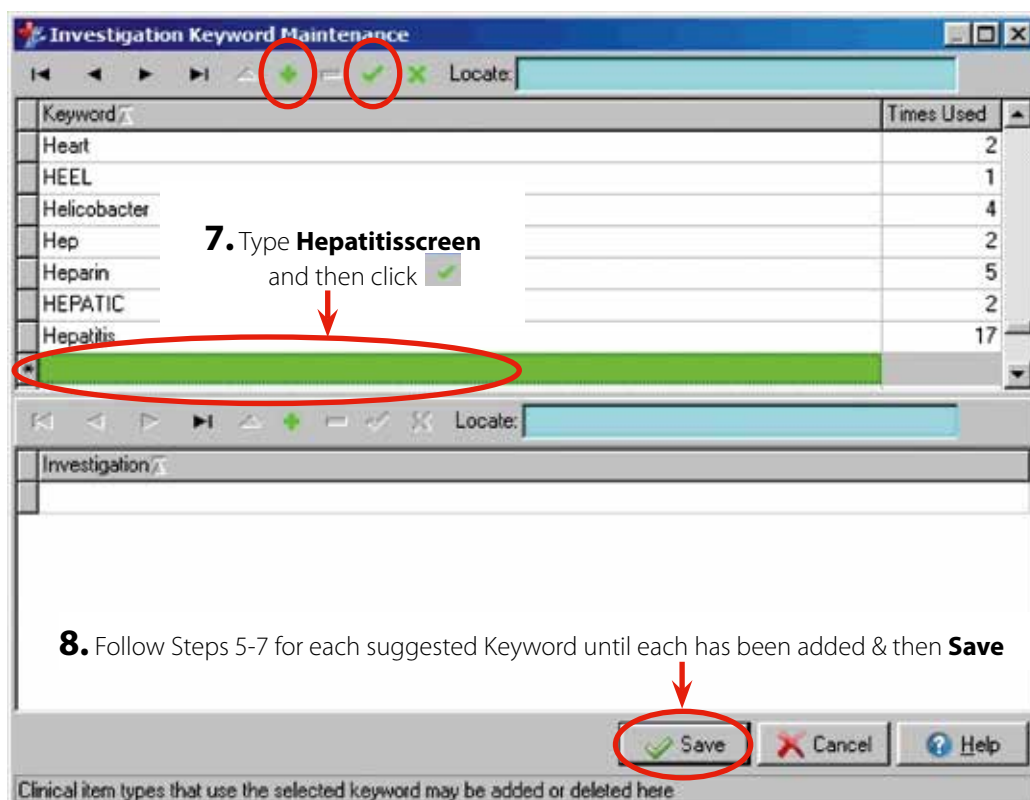
Check first to see if **Hepatitisscreen** is already a keyword;

5. Go to **Locate** and type **hepatitisscreen**. If it is not a keyword, progress to Step 6.



If the keyword has already been created, choose an alternative and then progress to Step 6.

6. Click 



ADDITION OF INVESTIGATIONS TO INVESTIGATION KEYWORDS

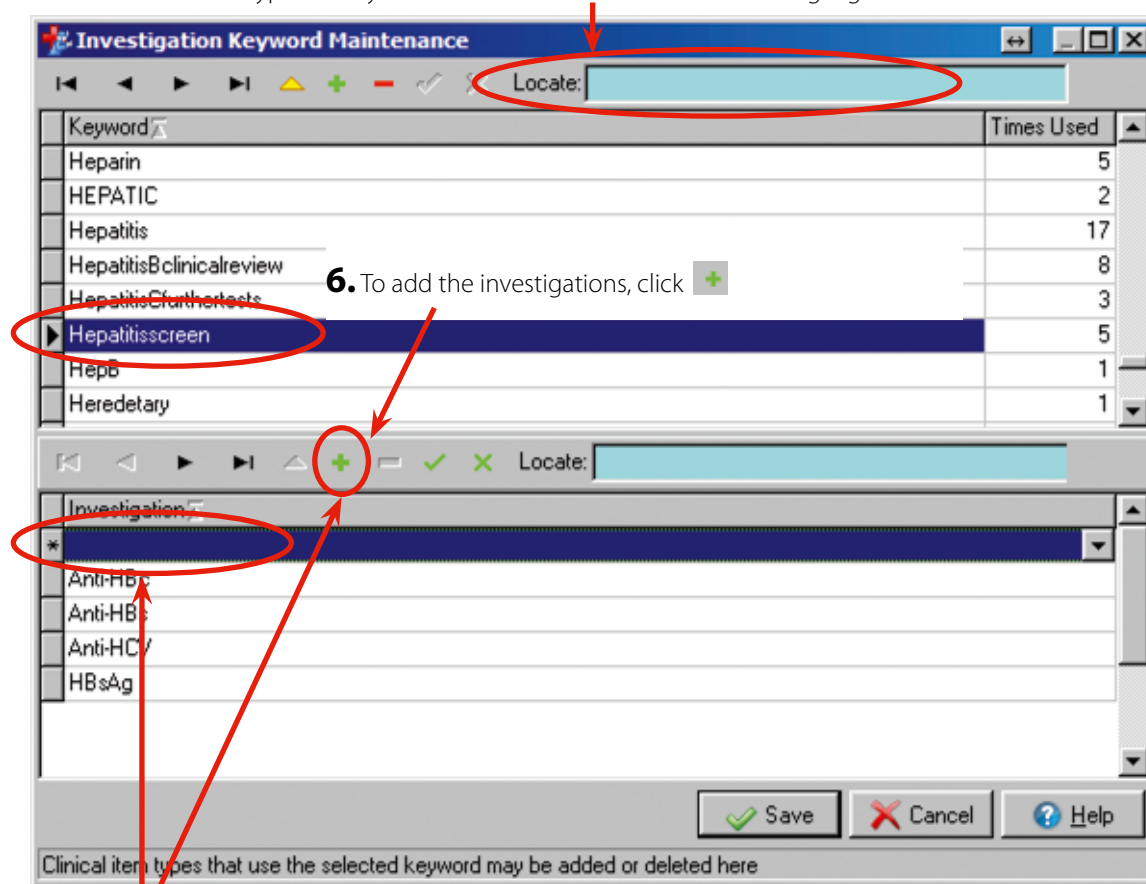
Once the Investigation Keywords have been created, investigations need to be attached to each of the keywords. If the keywords below have already been used you will need to use alternatives. Disabling or changing the investigations attached to keywords is discouraged as clinicians may be familiar with their use.

Investigations to add to Keywords;

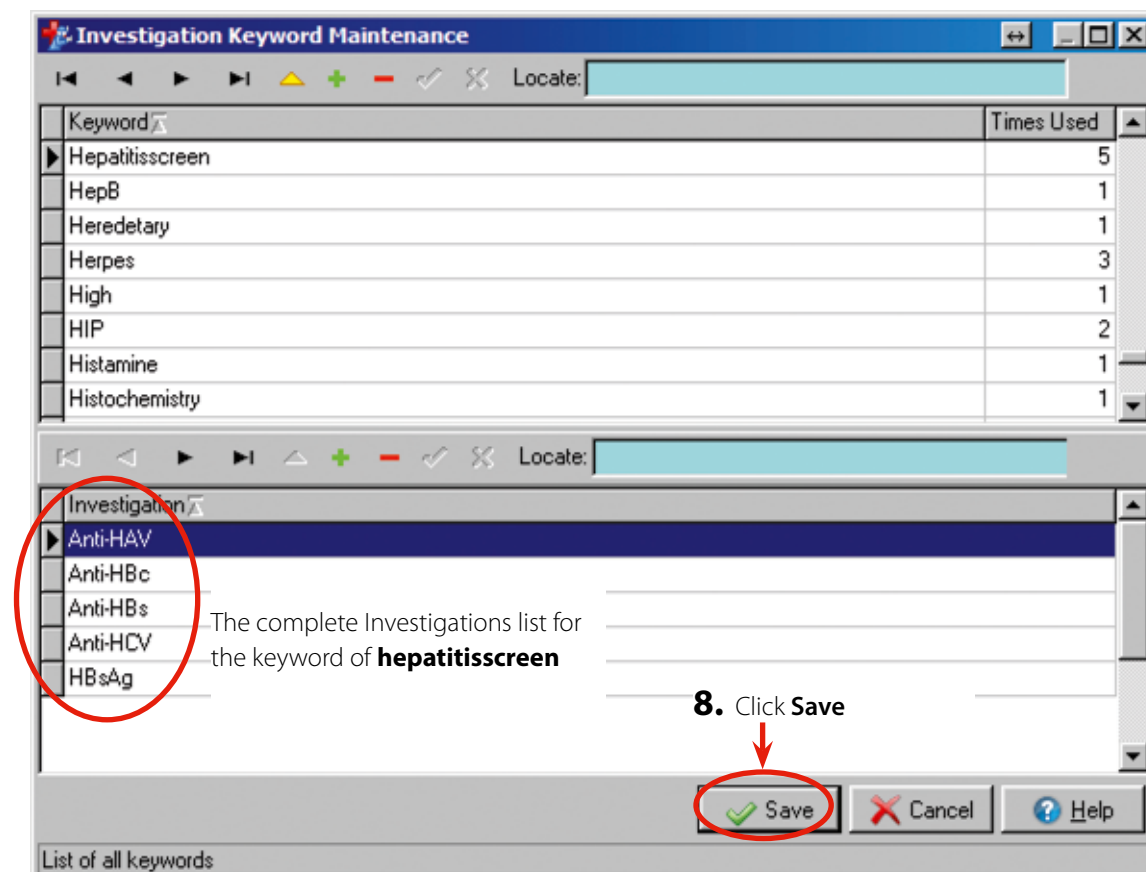
Keyword	Investigations to Add
Hepatitisscreen	Anti-HAV Anti-HBs HBsAg Anti-HBc Anti-HCV
HepatitisBclinicalreview	Alpha fetoprotein, serum Anti-HBe Anti-HDV Full Blood Examination HBV DNA viral load HBeAg International normalised ratio Liver function tests including AST
HepatitisCfurthertests	HCV RNA viral load & genotype HIV Antibodies 1/2 Liver function tests including AST

Continuing with the example of the Investigation Keyword **Hepatitisscreen**, follow through Steps 1-4 on p. 10 and continue with Steps 5-8 as below;

5. Type the keyword in **Locate** and then click on it to highlight



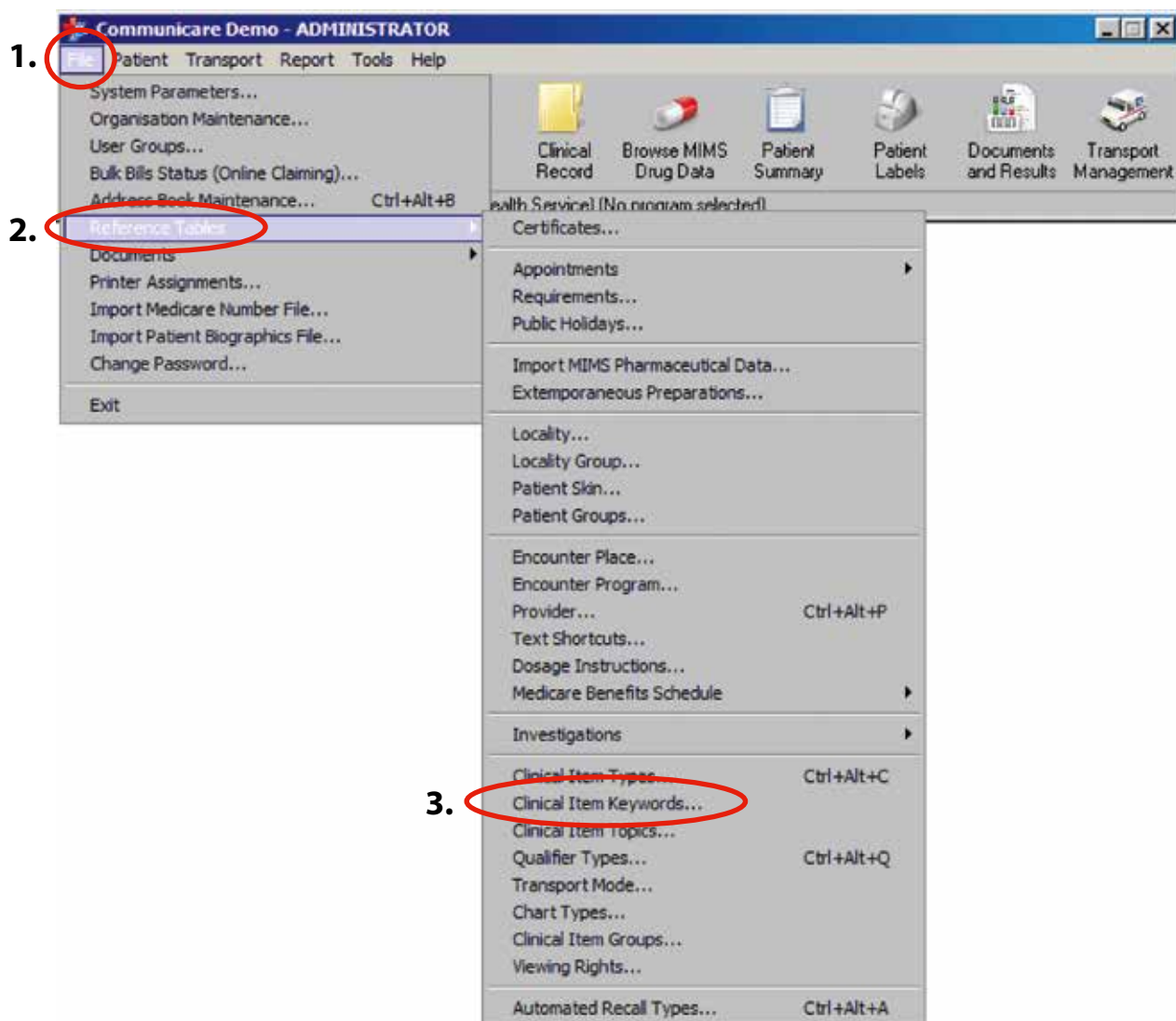
7. Click and start typing to locate each investigation required for hepatitis screening. Select e.g. Anti-HAV (scroll down to search list). Click **+** to add the next investigation

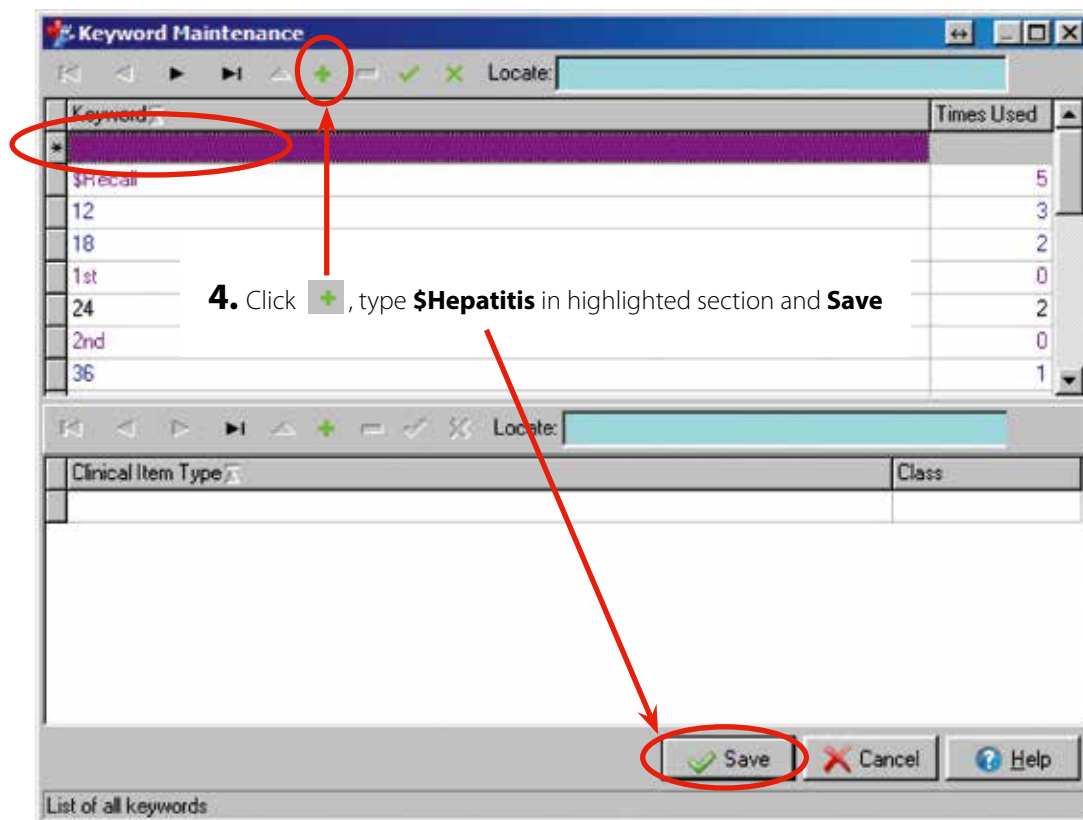


CREATION OF 'HEPATITIS' QUICK BUTTON

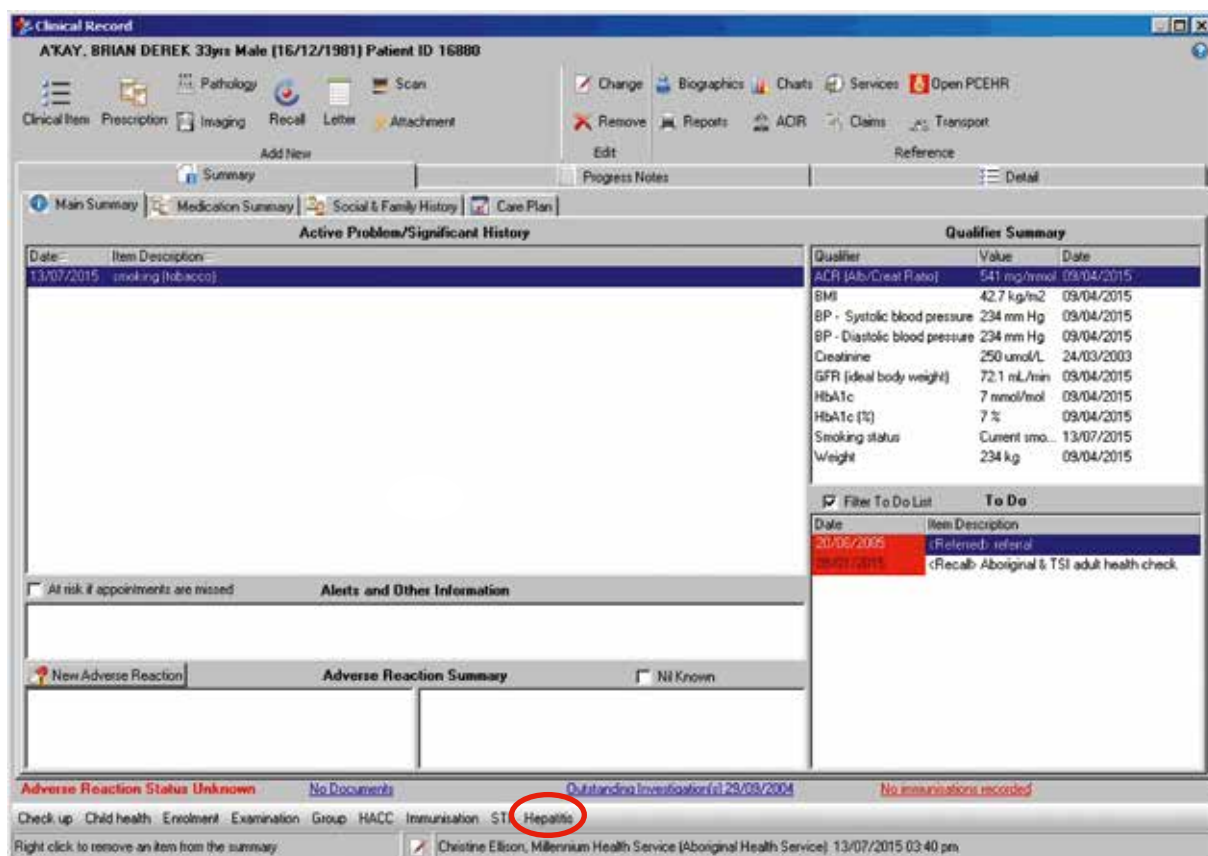
To make it easier for clinicians to locate the hepatitis clinical items suggested for use (instructions on how to create these to be addressed further along in this manual) create a 'Hepatitis' Quick Button.

Follow through Steps 1-4;





The 'Quick Button' will be accessible from within the Clinical Record when you next log into Communicare;



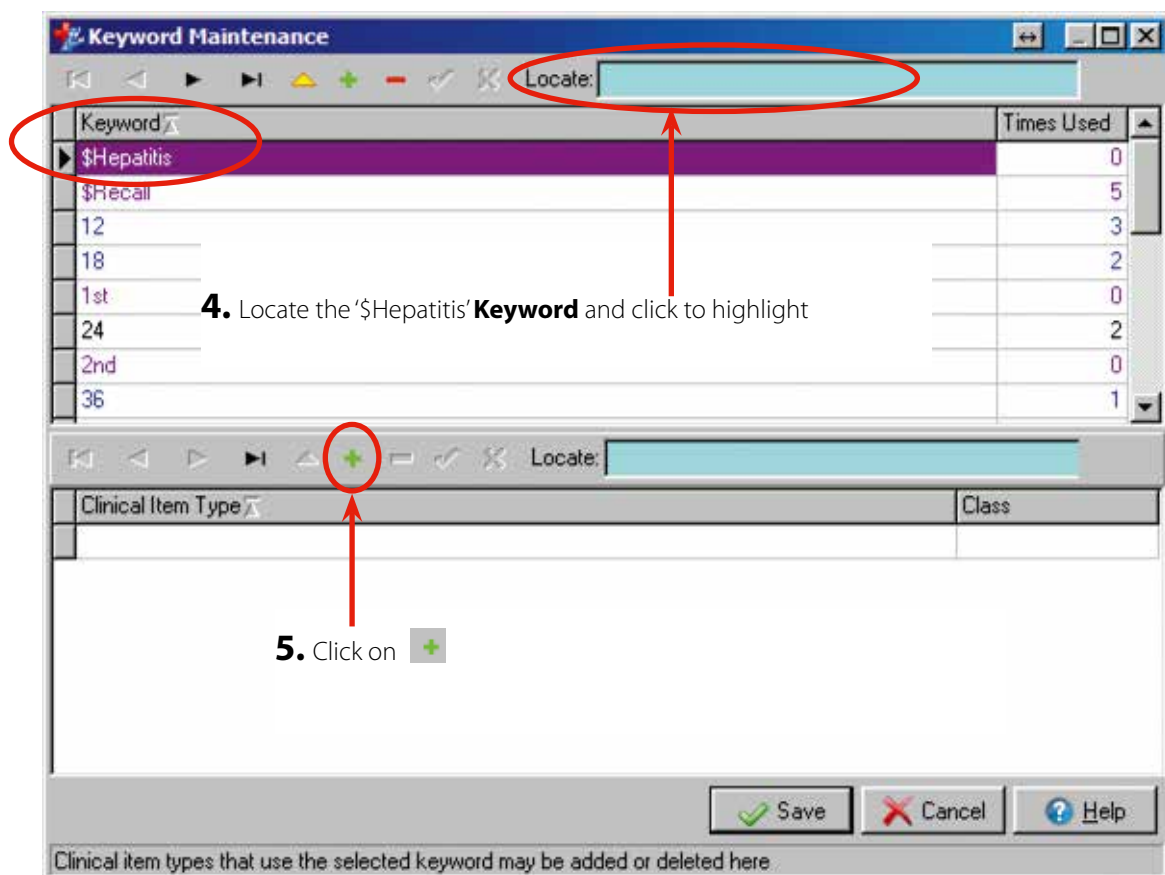
ADDING CLINICAL ITEMS TO 'HEPATITIS' QUICK BUTTON

The following clinical items are already available on Communicare (i.e. they don't require you to create them) and need to be accessible from the **Hepatitis** 'Quick Button';

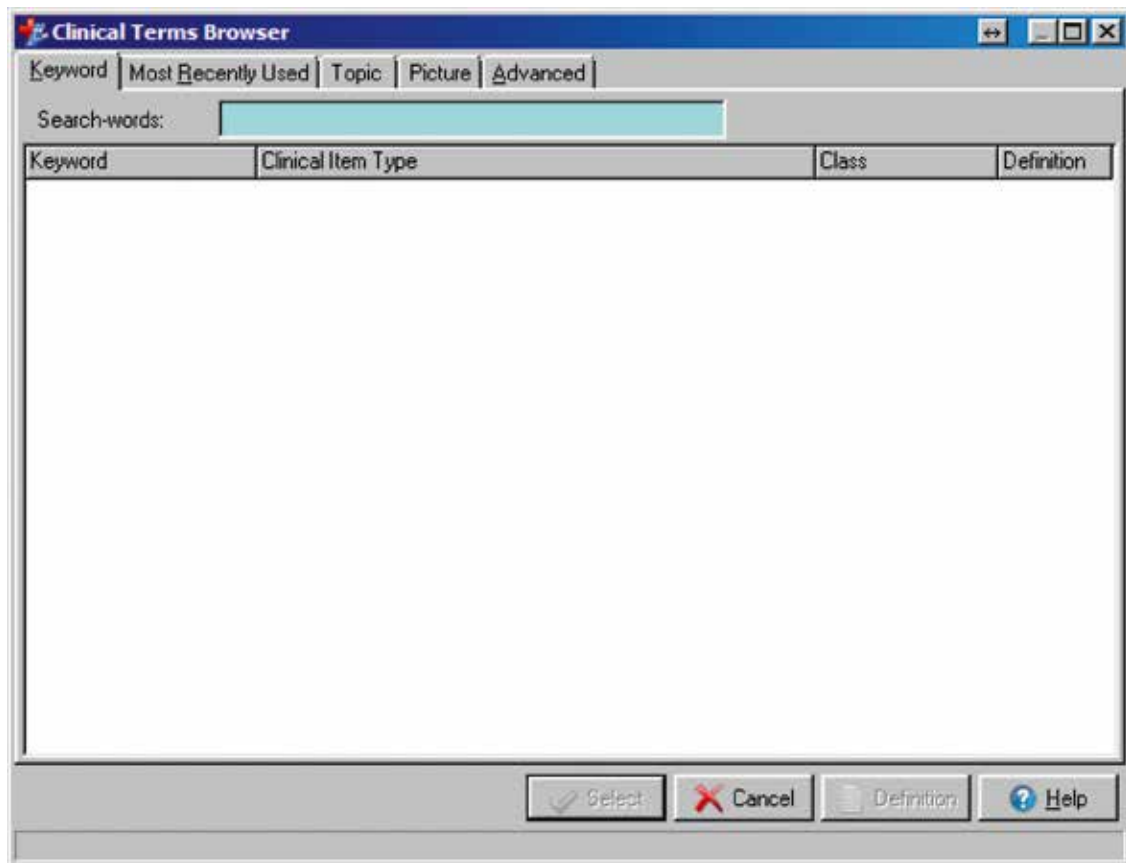
- Contact tracing;F
- Contact tracing;M
- Hepatitis D
- Hepatitis E
- Hepatitis A
- Referral;infection specialist

(For the clinical items you will create/modify, they will be added to the quick button later during their creation/modification)

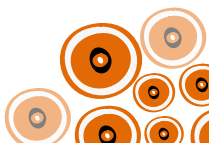
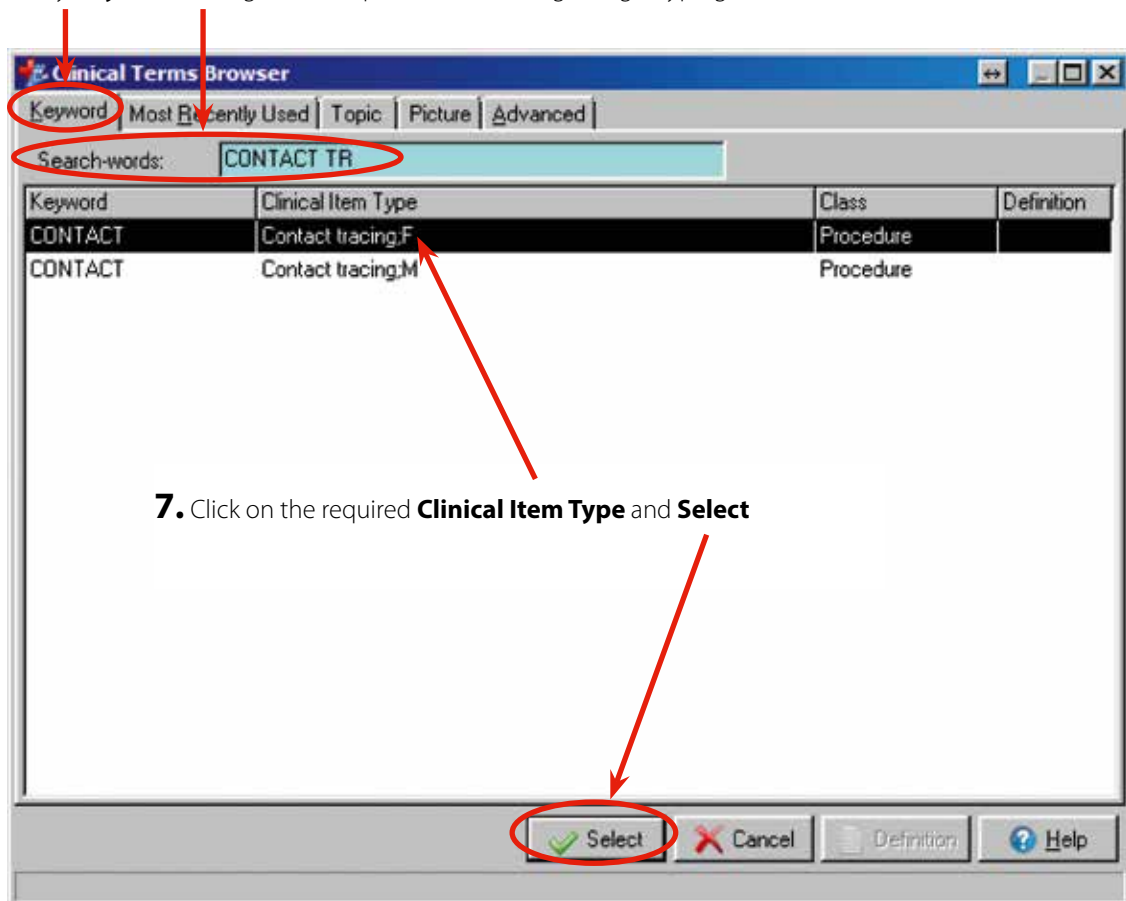
Follow on from Steps 1-3 on p. 14 with Steps 4-7 as below;

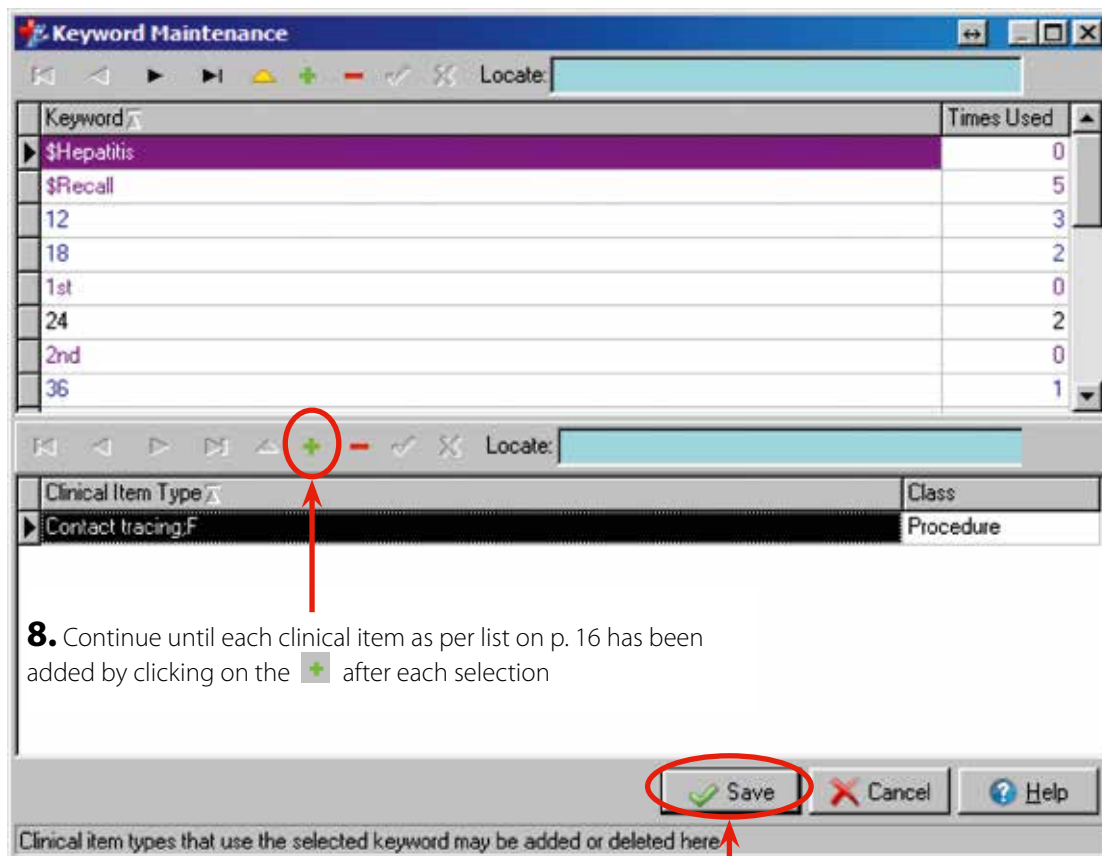


You will be taken to the **Clinical Terms Browser** to select the clinical items you need to make available from the **Hepatitis** quick button.



6. Search by **Keyword**. Using the example Contact tracing;F, begin typing this in **Search-words**;





CREATION OF QUALIFIERS

The Qualifiers below require creation prior to the creation of clinical items;

Qualifier Description	Value Type	Definition of:	Dropdown List Values	Units	Min Value	Max Value	Keyword	Additional Text
Advice/education;alcohol consumption	Dropdown list	---	Done Not done Not required	---	---	---	---	---
Advice/education;smoking cessation	Dropdown list	---	Done Not done Not required	---	---	---	---	---
Advice/education;cannabis use	Dropdown list	---	Done Not done Not required	---	---	---	---	---
Advice/education;IV drug use	Dropdown list	---	Done Not done Not required	---	---	---	---	---
Current alcohol consumption	Dropdown list	---	< 7 standard drinks/wk with 3 alcohol free days/wk > 7 standard drinks/wk None	---	---	---	---	---
Classification	Dropdown list	---	Infection needing surveillance Infection needing specialist management	---	---	---	---	---
Fibroscan Result	Dropdown list	---	Abnormal Normal Indetermined	---	---	---	---	---
Phase of infection	Dropdown list	---	Immune clearance Immune control Immune escape Immune tolerance	---	---	---	---	---
Liver specialist referral	Dropdown list	---	Referred, awaiting appointment Referred, under ongoing care Declined referral Not referred	---	---	---	---	---
Hepatitis A immune	Dropdown list	---	Exposure Immunisation	---	---	---	---	---
Hepatitis B immune	Dropdown list	---	Exposure Immunisation	---	---	---	---	---

Qualifier Description	Value Type	Definition of:	Dropdown List Values	Units	Min Value	Max Value	Keyword	Additional Text
IV drug use	Dropdown list	---	Current Past States has never used Unknown	---	---	---	---	---
Hepatitis B status	Dropdown list	---	Acute infection Chronic infection Immune due to vaccination Immune due to resolved infection Not immune and not infected	---	---	---	---	---
Anti-HBs / date of test	Dropdown list with text box	---	Detected Not detected	---	---	---	---	✓ ✓
HAV status / date of test	Dropdown list with text box	---	Immune Non-immune Unknown	---	---	---	---	✓ ✓ ---
HBsAg / date of test	Dropdown list with text box	---	Detected Not detected	---	---	---	---	✓ ✓
Anti-HBc / date of test	Dropdown list with text box	---	Detected Not detected	---	---	---	---	✓ ✓
HBeAg / date of test	Dropdown list with text box	---	Detected Not detected	---	---	---	---	✓ ✓
Anti-HBe / date of test	Dropdown list with text box	---	Detected Not detected	---	---	---	---	✓ ✓
HCV status / date of test	Dropdown list with text box	---	Ab positive, RNA negative Ab positive, RNA positive Negative Under treatment Unknown	---	---	---	---	✓ ✓ ✓ ✓ ---
HDV status / date of test	Dropdown list with text box	---	Positive Negative Unknown	---	---	---	---	✓ ✓ ---
Jaundice	Yes/No	---	---	---	---	---	---	---
Clubbing	Yes/No	---	---	---	---	---	---	---

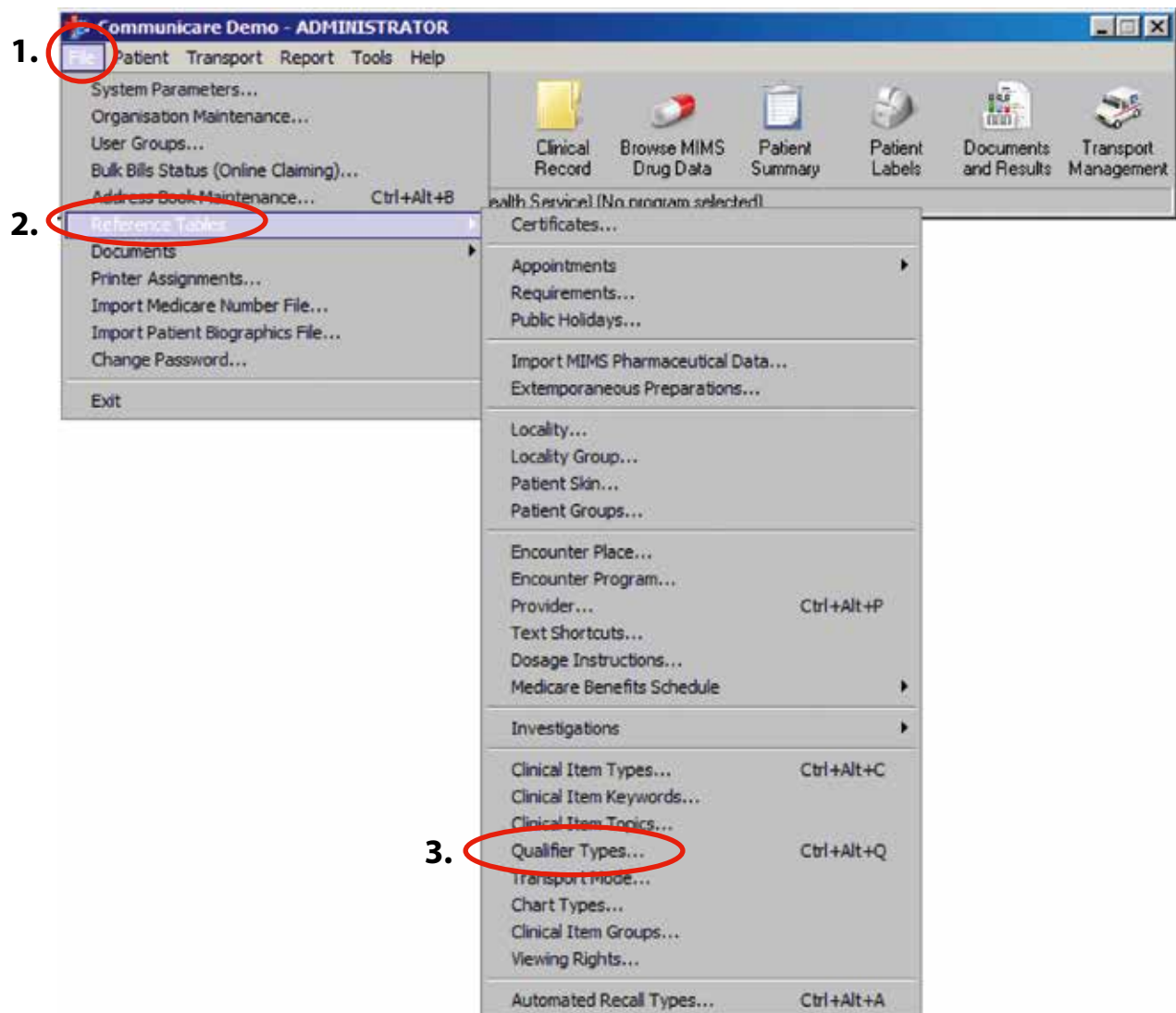
Qualifier Description	Value Type	Definition of:	Dropdown List Values	Units	Min Value	Max Value	Keyword	Additional Text
Encephalopathy	Yes/No	---	---	---	---	---	---	---
Palmar erythema	Yes/No	---	---	---	---	---	---	---
Ascites	Yes/No	---	---	---	---	---	---	---
Oedema legs	Yes/No	---	---	---	---	---	---	---
Cannabis use	Yes/No	---	---	---	---	---	---	---
Contacts identified	Yes/No	---	---	---	---	---	---	---
Provision of infection control advice	Yes/No	---	---	---	---	---	---	---
- Hepatitis B surface Ag & Ab levels	Yes/No	Has follow up of these contacts been initiated?	---	---	---	---	---	---
Contact Tracing (this qualifier may be available already)	Title	---	---	---	---	---	---	---
Physical Examination	Title	---	---	---	---	---	---	---
Previous Investigation Results	Title	---	---	---	---	---	---	---
Summary	Title	---	---	---	---	---	---	---
Hepatitis B—clinical review tests	Investigation Request	---	---	---	---	---	HepatitisBclinicalreview	---
Hepatitis screen –investigation request	Investigation Request	---	---	---	---	---	HepatitisScreen	---
Hepatitis C—further tests	Investigation Request	These tests required following Anti-HCV positive result	---	---	---	---	HepatitisCfurthertests	---
< 11	Numeric	AFP (Alpha fetoprotein)	---	kIU/L	0	11	---	---
Date of last abdominal ultrasound	Date	---	---	---	---	---	---	---
Date of last fibroscan	Date	---	---	---	---	---	---	---
Abdominal ultrasound result	Free text	---	---	---	---	---	---	---
Further health advice provided	Memo	---	---	---	---	---	---	---

The creation of qualifiers with a **Value Type** of; **Date**, **Free text**, **Memo**, **Title** and **Yes/No** simply require this to be selected from the **Value Type** dropdown list. Follow Step 1–8 on p. 22–23.

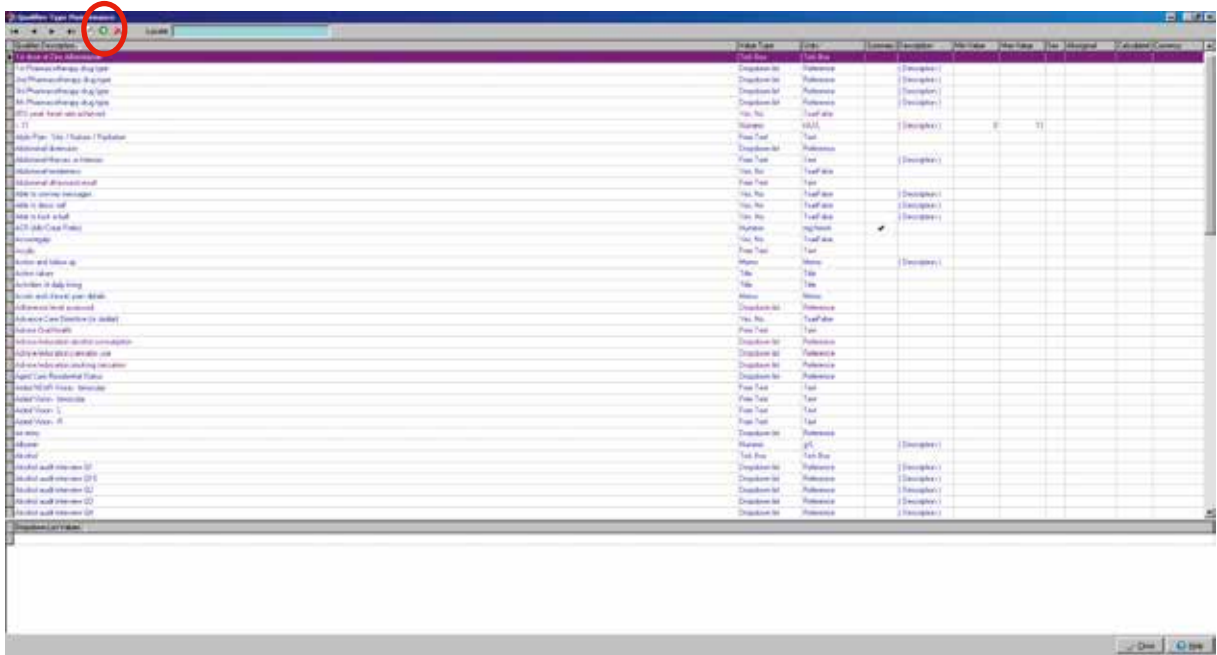
Further details to create qualifiers with a **Value Type** of; **Dropdown List**, **Dropdown List with Additional Text**, **Numeric** and **Investigation Request**, see p. 19–27.

CREATION OF A QUALIFIER WITH A DROPDOWN LIST

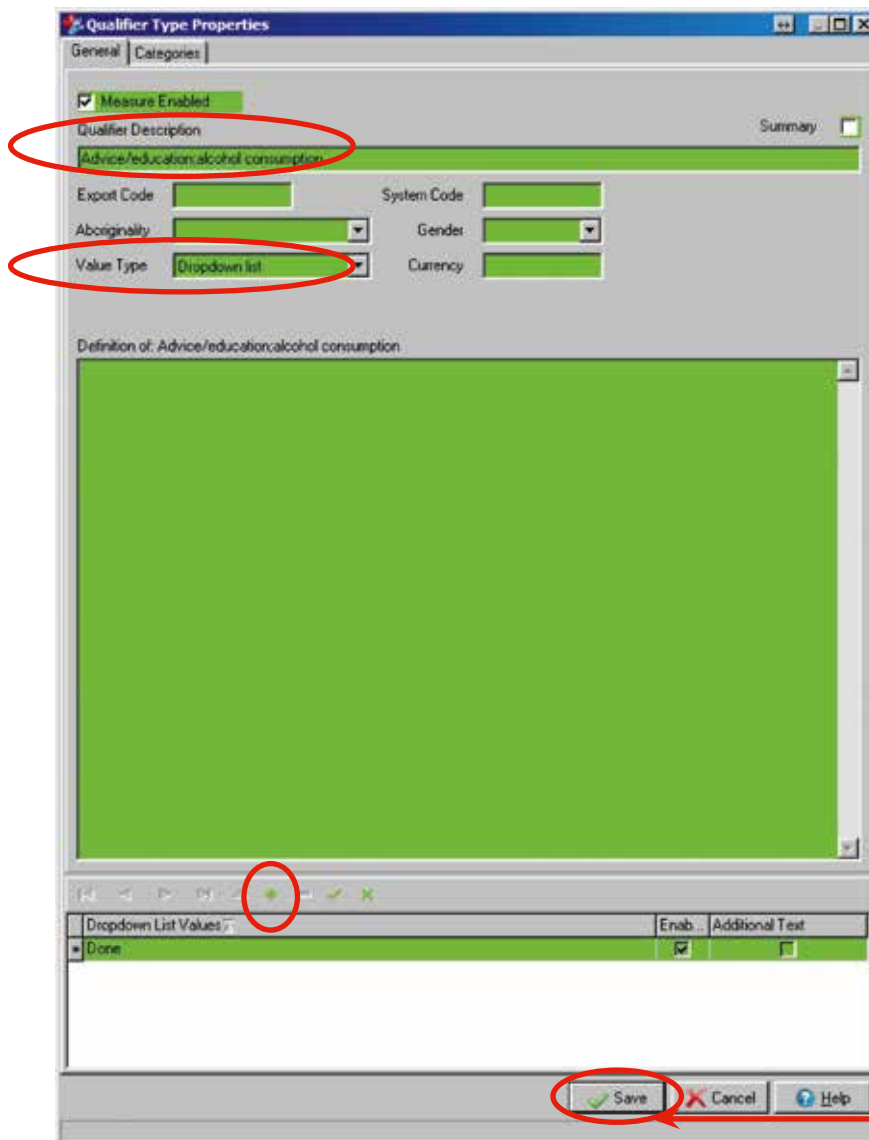
Using the example of the qualifier **Advice/education;alcohol consumption**, follow Steps 1–8;



4. Click 




The **Qualifier Type Properties** window will open;



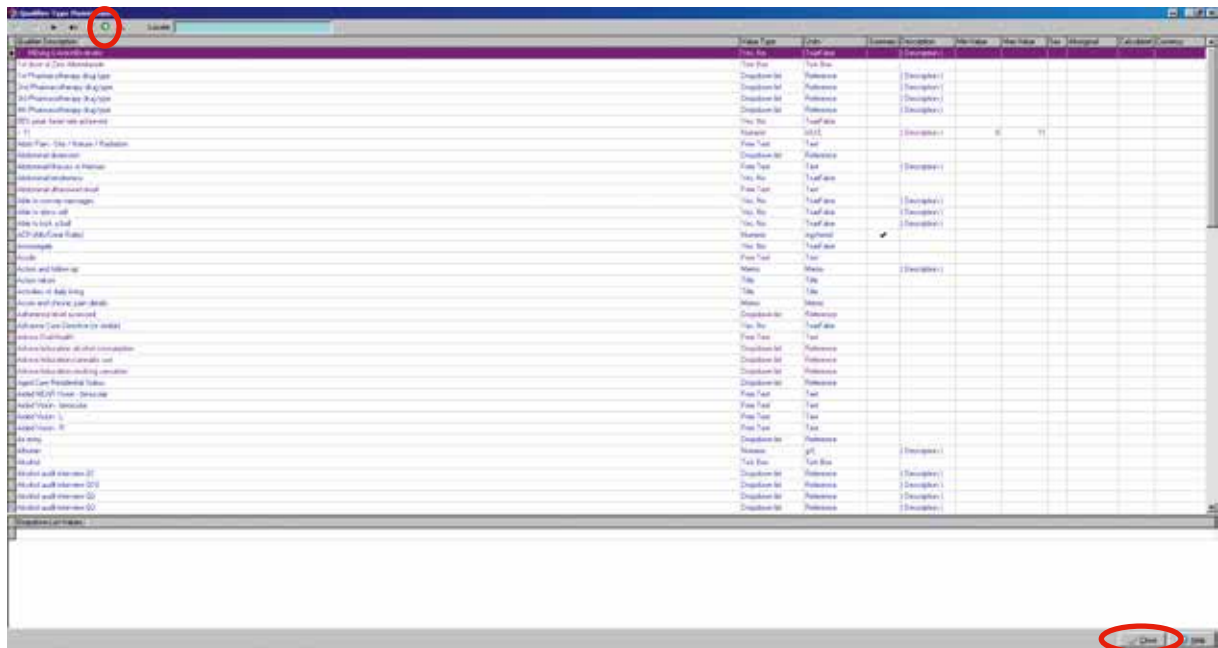
5. Enter name of qualifier in **Qualifier Description**

6. Choose the **Value Type** of **Dropdown list**

7. Click  to add the **Dropdown List Values** after each value until all values have been entered as per table, p. 19.

8. Click **Save**

9. To continue adding qualifiers click 



10. When all qualifiers have been added click **Close**

CREATION OF A QUALIFIER WITH A DROPDOWN LIST WITH ADDITIONAL TEXT

Using the example of the qualifier '**Anti-HBs / date of test**' below, follow Steps 1-6 of "Creation of a Qualifier with a Dropdown list" on p. 22-23 and then continue with Steps 7-8 on this page.

Qualifier Type Properties

General | Categories

☒ Measure Enabled

Qualifier Description: Anti-HBs / date of test

Summary: ☐

Export Code: System Code:

Aboriginality: Gender:

Value Type: Dropdown list Currency:

Definition of: Anti-HBs / date of test

Dropdown List Values	Enab	Additional Text
Detected	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Buttons: Save, Cancel, Help

7. Tick the **Additional Text** box of each **Dropdown List Values**

8. Click  following the entry of each **Dropdown List Values** until all values have been entered and then '**Save**'. Follow with Steps 9 &/or 10 on p. 24

CREATION OF A QUALIFIER WITH AN INVESTIGATION REQUEST

Using the example of the qualifier **Hepatitis screen–investigation request** below, follow Steps 1-5 of “Creation of a Qualifier with a Dropdown list” on p. 22–23 and then continue with Steps 6–8 on this page.

Qualifier Type Properties

General | Categories

☒ Measure Enabled

Qualifier Description: Hepatitis screen - investigation request

Export Code: System Code:

Aboriginality: Gender:

Value Type:

Keyword: Hepatitis screen

Definition of: Hepatitis screen - investigation request

☒ Save

6. Enter **Value Type** of 'Investigation Request'

7. Add the 'Keyword'

8. Click **Save**. Follow with Steps 9 &/or 10 on p. 24

CREATION OF A NUMERIC QUALIFIER

Using the example of the qualifier <11 below, follow Steps 1-5 of "Creation of a Qualifier with a Dropdown list" on p. 22-23 and then continue with Steps 6-8 on this page.

The image shows a 'Qualifier Type Properties' dialog box with two tabs: 'General' and 'Categories'. The 'General' tab is active. It contains the following fields and controls:

- Measure Enabled:** A checked checkbox.
- Qualifier Description:** A text field containing '< 11'.
- Summary:** An unchecked checkbox.
- Value Type:** A dropdown menu set to 'Numeric'.
- Units:** A text field containing 'KIU/L'.
- Min Value:** A text field containing '0'.
- Max Value:** A text field containing '11'.
- Definition of: < 11:** A large text area containing 'AFP (Alpha fetoprotein)'.
- Buttons:** 'Save' (with a green checkmark icon), 'Cancel' (with a red X icon), and 'Help' (with a question mark icon).

Red circles highlight the 'Value Type', 'Units', 'Min Value', 'Max Value', 'Definition of: < 11', and 'Save' button.

6. Enter **Value Type** of 'Numeric'

7. Add the **Units**, **Min Value** & **Max Value**

8. Add the **Definition** and **Save**, then follow with Steps 9 &/or 10 on p. 24

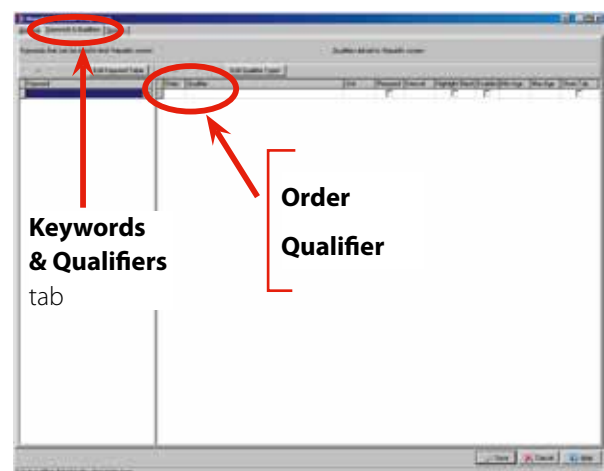
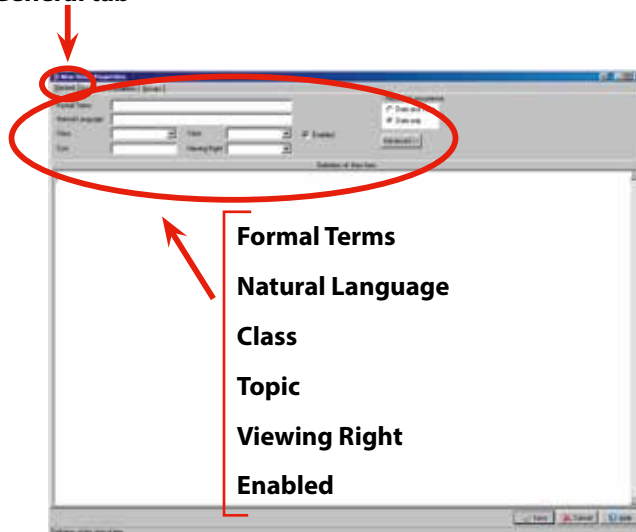
CREATION/MODIFICATION OF CLINICAL ITEMS (WITH QUALIFIERS)

The following clinical items with qualifiers need to be created or modified;

- Hepatitis Screen; Investigation Request
- Hepatitis B (modification *)
- Hepatitis A immune
- Hepatitis B immune
- Hepatitis B; clinical review tests
- Hepatitis C; further tests
- Review; chronic Hepatitis B
- Hepatitis C (modification *)
- Review; chronic hepatitis C

For instructions re clinical item creation see p. 34. The **New Item Properties** (details of each clinical item) are set out in the table on p. 29–33. The screenshot below identifies where in Communicare the headings referred to in the **New Item Properties** table are located.

General tab



CLINICAL ITEM NEW ITEM PROPERTIES;

1. Hepatitis Screen; Investigation Request

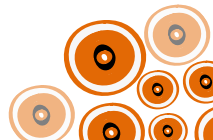
GENERAL					
Formal Terms	Natural Language	Class	Topic	Viewing Right	Recallable / Enabled
Hepatitis Screen; Investigation Request	Hepatitis Screen; Investigation Request	Procedure	Investigations	Common	x ✓
KEYWORDS & QUALIFIERS					
Keywords	Order	Qualifier			
\$HEPATITIS HBV HCV HEPB HEPATITIS LIVER	10	Hepatitis Screen–Investigation Request			

2. Hepatitis B

GENERAL					
Formal Terms	Natural Language	Class	Topic	Viewing Right	Recallable / Enabled
Hepatitis B*	Hepatitis B	Condition	Digestive	Highly Sensitive Information	x ✓
* This clinical item already exists within Communicare but requires modification. Follow Steps 1–16 on p. 39–43.					
KEYWORDS & QUALIFIERS					
Keywords	Order	Qualifier			
\$HEPATITIS HBV HEP HEPB HEPATITIS LIVER	10	Classification			

3. Hepatitis A immune

GENERAL					
Formal Terms	Natural Language	Class	Topic	Viewing Right	Recallable / Enabled
Hepatitis A immune	Hepatitis A immune	History	Digestive	Common	x ✓
KEYWORDS & QUALIFIERS					
Keywords	Order	Qualifier			
\$HEPATITIS HEP HEPA HEPATITIS LIVER	10	Hepatitis A immune			



4. Hepatitis B immune

GENERAL					
Formal Terms	Natural Language	Class	Topic	Viewing Right	Recallable / Enabled
Hepatitis B immune	Hepatitis B immune	History	Digestive	Common	x ✓
KEYWORDS & QUALIFIERS					
Keywords	Order	Qualifier			
\$HEPATITIS HBV HEP HEPB HEPATITIS LIVER	10	Hepatitis B immune			

5. Hepatitis B;clinical review tests

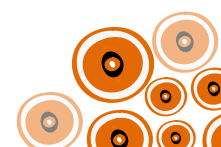
GENERAL					
Formal Terms	Natural Language	Class	Topic	Viewing Right	Recallable / Enabled
Hepatitis B;clinical review tests	Hepatitis B;clinical review tests	Condition	Digestive	Highly Sensitive Information	x ✓
KEYWORDS & QUALIFIERS					
Keywords	Order	Qualifier			
\$HEPATITIS HBV HEP HEPB HEPATITIS LIVER	10	Hepatitis B–clinical review tests			

6. Hepatitis C;further tests

GENERAL					
Formal Terms	Natural Language	Class	Topic	Viewing Right	Recallable / Enabled
Hepatitis C;further tests	Hepatitis C;further tests	Condition	Digestive	Highly Sensitive Information	x ✓
KEYWORDS & QUALIFIERS					
Keywords	Order	Qualifier			
\$HEPATITIS HCV HEP HEPC HEPATITIS LIVER	10	Hepatitis C–further tests			

7. Review;chronic hepatitis B

GENERAL					
Formal Terms	Natural Language	Class	Topic	Viewing Right	Recallable / Enabled
Review;chronic hepatitis B	Review;chronic hepatitis B	Procedure	Digestive	Highly Sensitive Information	✓ ✓
KEYWORDS & QUALIFIERS					
Keywords	Order	Qualifier			
\$HEPATITIS	10	History			
\$Recall	20	Current alcohol consumption			
HEP	30	Advice/education;alcohol consumption			
HEPB	40	Smoking status			
HBV	50	Advice/education;smoking cessation			
HEPATITIS	60	Cannabis use			
LIVER	70	Advice/education;cannabis use			
	80	IV drug use			
	90	Advice/education;IV drug use			
	100	Physical Examination			
	110	Jaundice			
	120	Clubbing			
	130	Palmar erythema			
	140	Ascites			
	150	Hepatomegaly			
	160	Splenomegaly			
	170	Oedma legs			
	180	Height			
	190	Weight			
	200	BMI			
	210	Previous Investigation Results			
	220	HAV status / date of test			
	230	HBeAg / date of test			
	240	Anti-HBe / date of test			
	250	HCV / date of test			
	260	HDV / date of test			
	270	HIV			
	280	Albumin			
	290	ALT (Alanine Aminotransferase)			
	300	ALP (Alkaline Phosphatase)			
	310	Bilirubin			
	320	GGT (Gamma Glutamyl Transferase)			
	330	<11			
	340	Date of last abdominal ultrasound			
	350	Abdominal ultrasound result			
	360	Date of last fibroscan			
	370	Fibroscan result			
	380	Contact Tracing			
	390	Contacts identified			
	400	- HBsAg & Anti-HBs levels			
	410	Provision of infection control advice			
	420	Further health advice provided			
	430	Summary			
	440	Phase of infection			
	450	Liver specialist referral			

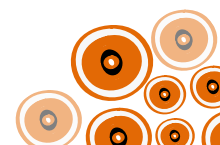


8. Hepatitis C

GENERAL					
Formal Terms	Natural Language	Class	Topic	Viewing Right	Recallable / Enabled
Hepatitis C*	Hepatitis C	Condition	Digestive	Highly Sensitive Information	x ✓
* This clinical item already exists within Communicare but requires modification. Follow Steps 1–16 on p. 39–43.					
KEYWORDS & QUALIFIERS					
Keywords	Order	Qualifier			
\$HEPATITIS HCV HEP HEPC HEPATITIS LIVER	10	Hepatitis C infection			

9. Review;chronic hepatitis C

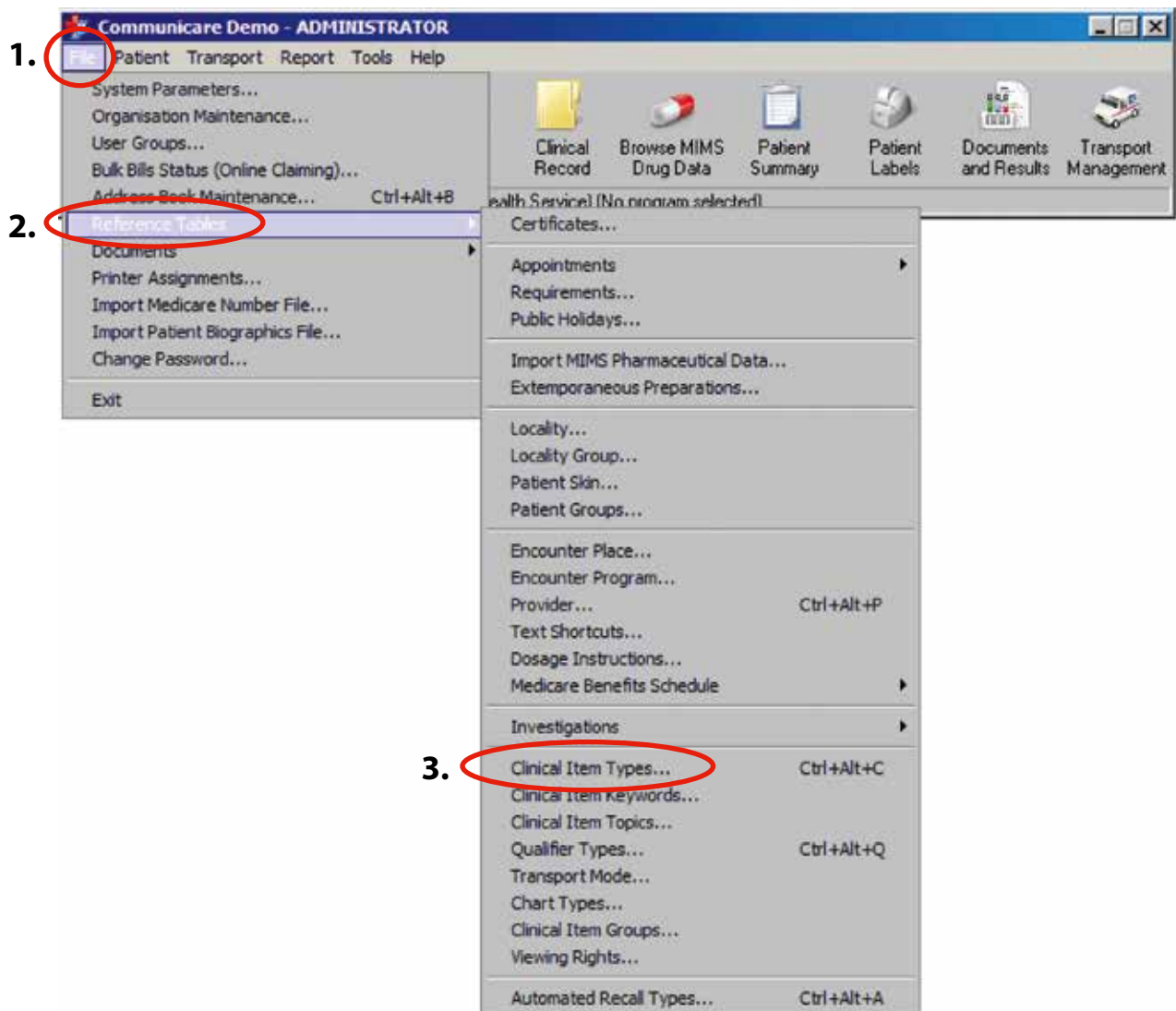
GENERAL					
Formal Terms	Natural Language	Class	Topic	Viewing Right	Recallable / Enabled
Review;chronic hepatitis C	Review;chronic hepatitis C	Procedure	Digestive	Highly Sensitive Information	✓ ✓
KEYWORDS & QUALIFIERS					
Keywords	Order	Qualifier			
\$HEPATITIS	10	History			
\$Recall	20	Current alcohol consumption			
HEP	30	Advice/education;alcohol consumption			
HEPC	40	Smoking status			
HEPATITIS	50	Advice/education;smoking cessation			
LIVER	60	Cannabis use			
HCV	70	Advice/education;cannabis use			
	80	IV drug use			
	90	Advice/education;IV drug use			
	100	Physical Examination			
	110	Spider naevi			
	120	Jaundice			
	130	Encephalopathy			
	140	Palmar erythema			
	150	Ascites			
	160	Hepatomegaly			
	170	Splenomegaly			
	180	Oedma legs			
	190	Height			
	200	Weight			
	210	BMI			
	220	Previous Investigation Results			
	230	HAV status / date of test			
	240	Hepatitis B status			
	250	HIV			
	260	Albumin			
	270	ALT (Alanine Aminotransferase)			
	280	ALP (Alkaline Phosphatase)			
	290	Bilirubin			
	300	GGT (Gamma Glutamyl Transferase)			
	310	<11			
	320	Date of last abdominal ultrasound			
	330	Abdominal ultrasound result			
	340	Date of last fibroscan			
	350	Fibroscan result			
	360	Contact Tracing			
	370	Contacts identified			
	380	Provision of infection control advice			
	390	Further health advice provided			
	400	Summary			



CREATING THE CLINICAL ITEM

Using the example; **Hepatitis Screen; Investigation Request** with qualifier **Hepatitis Screen; investigation request**





Follow Steps 1–13;



Hepatitis screen; investigation request: Properties





General | **Keywords & Qualifiers** | Groups

Keywords that can be used to find: Hepatitis screen; investigation request

    Edit Keyword Table

Keyword
<input type="checkbox"/> \$Hepatitis
<input checked="" type="checkbox"/> HCV
<input type="checkbox"/> HBV
<input type="checkbox"/> HEPB
<input type="checkbox"/> HEPATITIS
<input type="checkbox"/> LIVER

Qualifiers linked to: Hepatitis screen; investigation request

    Edit Qualifier Types

Order	Qualifier	Unit	Required	Interval	Highlight Blank	Enabled	Min Age	Max Age	Show Tab
			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>

7. Add Keywords

Save Cancel Help

List of qualifiers linked to this clinical item type

ADDING THE QUALIFIER

The **Order** defines the order in which the qualifiers will appear within the Clinical Item (setting the **Order** in increments of 10, 20 30 etc., makes the qualifiers easier to manipulate later if necessary).

Follow Steps 8–13;

8. Enter '10' in the **Order** box

9. Click in the **Qualifier** box and start typing the name of the qualifier to add e.g. **Hepatitis screen;investigation request**

10. Click on the qualifier

11. Click if more qualifiers are required. Continue until the final qualifier is added.

12. Click **Save**

13. Click

The clinical item will be accessible from the **Hepatitis** quick button when you next log into Communicare (as it has the \$**Hepatitis** keyword attached to it).

Clinical item **Hepatitis Screen; Investigation Request** with qualifier;

The screenshot shows the 'Add Clinical Item' window for a patient named A'KAY, BRIAN DEREK 33yrs. The title is 'Hepatitis screen; investigation request'. The provider is Christine Ellison, Millennium Health Service (Aboriginal Health Service), dated 09/10/2015 04:40 pm. There is a 'Comment' field and a 'Display on Main Summary' checkbox. The 'Performed date' is set to 09/10/2015. At the bottom, there is a red circle around the text 'Hepatitis screen - investigation request' and a 'Request Investigation' button. Other buttons at the bottom include 'Print and Save', 'Save', 'Cancel', and 'Help'.

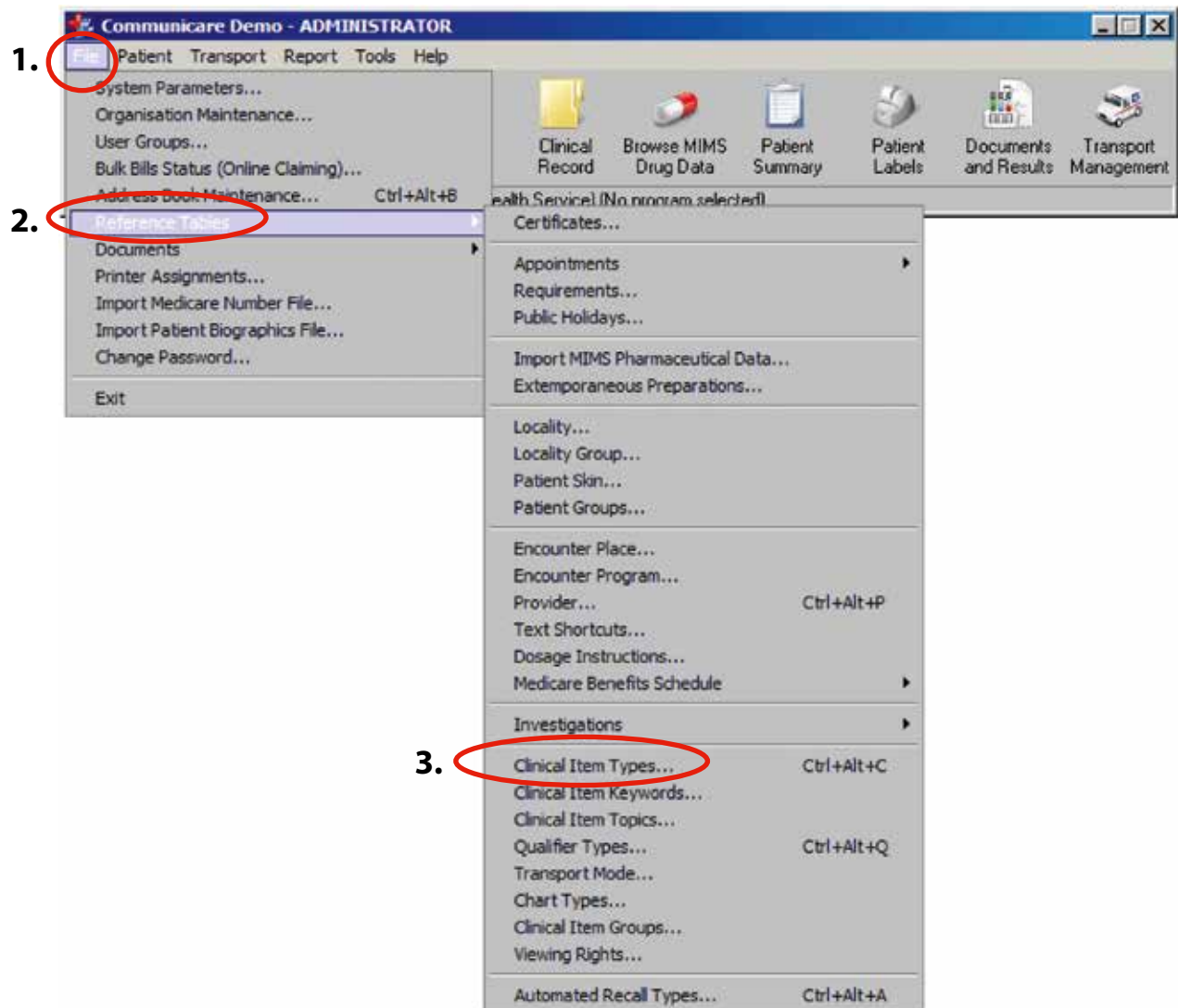
Clicking on the **Request Investigation** button qualifier takes the provider to the **Add Investigation Request** window

The screenshot shows the 'Add Investigation Request' window for the same patient. The provider is Christine Ellison, Millennium Health Service (Aboriginal Health Service), dated 09/10/2015 03:12 pm. The 'Investigation Provider' is a dropdown menu. The 'Search Investigations' field is empty. A list of investigations is shown on the left, including 'ACR, urine', 'Albumin', 'Albumin Creatinine Ratio', 'Alpha fetoprotein, serum', 'Anti DNA antibodies', 'Anti Thyroid antibodies', 'Anti-DNASE B titre', 'Anti-HAV', 'Anti-HBc', 'Anti-HBe', 'Anti-HBs', 'Anti-HCV', 'Anti-HDV', and 'Anti-streptolysin O titre'. On the right, a list of 'Investigations Requested' is shown, including 'Anti-HAV', 'Anti-HBc', 'Anti-HBs', 'Anti-HCV', and 'HBsAg'. There are navigation buttons between the lists: '>', '<', '>>', and '<<'. Below the lists, there are checkboxes for 'Fasting' and 'Pregnant'. The 'Clinical Notes' field is empty. At the bottom, there are buttons for 'Print and Save', 'Save', 'Cancel', and 'Help'. A footer note says 'Click to remove all items from Investigations Requested'.

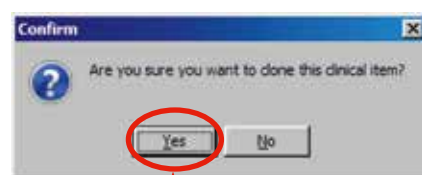
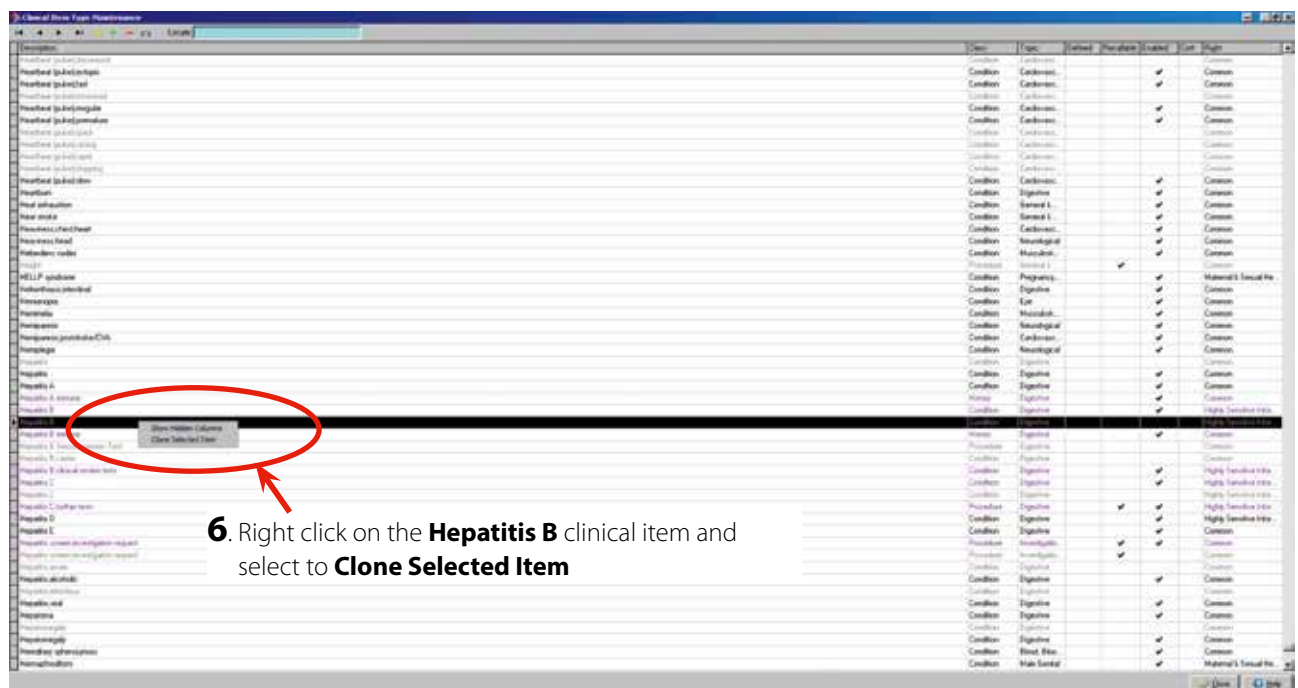
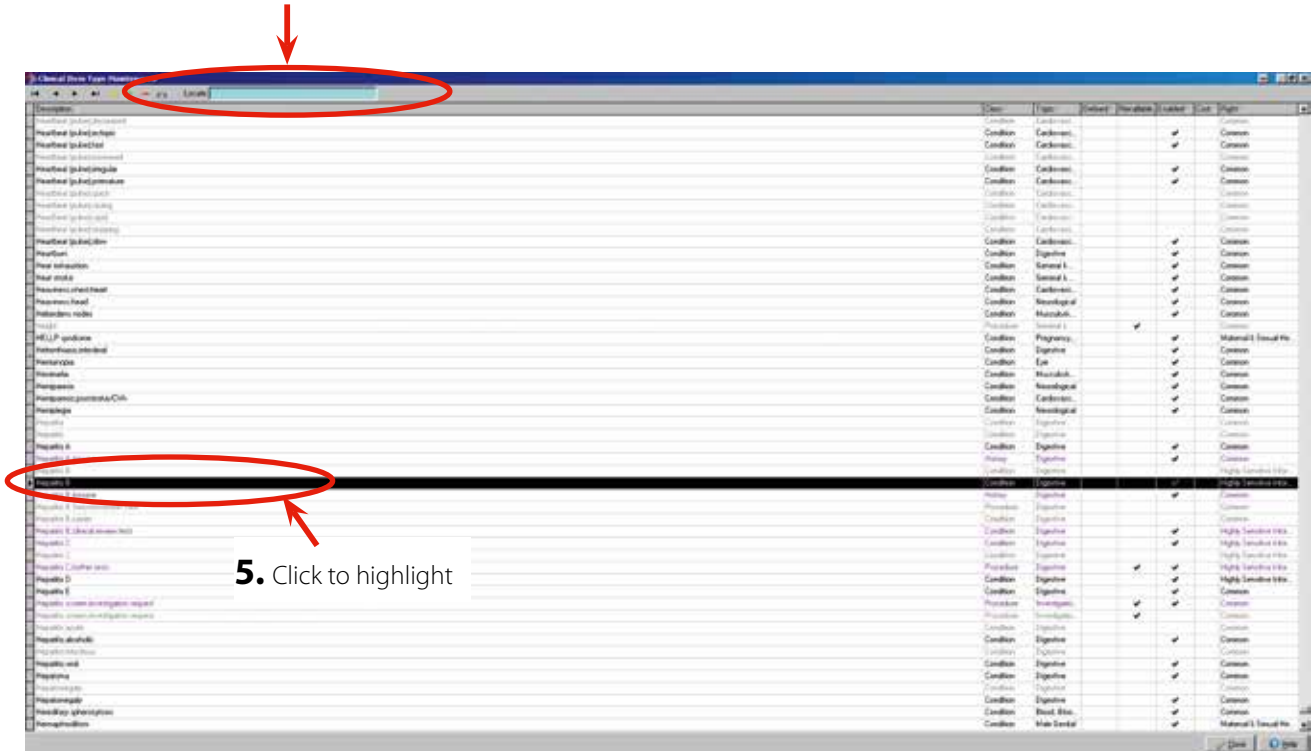
The investigations are automatically selected as they are linked to the keyword entered in **Qualifier Type Properties** as per p. 26.

MODIFYING AN EXISTING CLINICAL ITEM

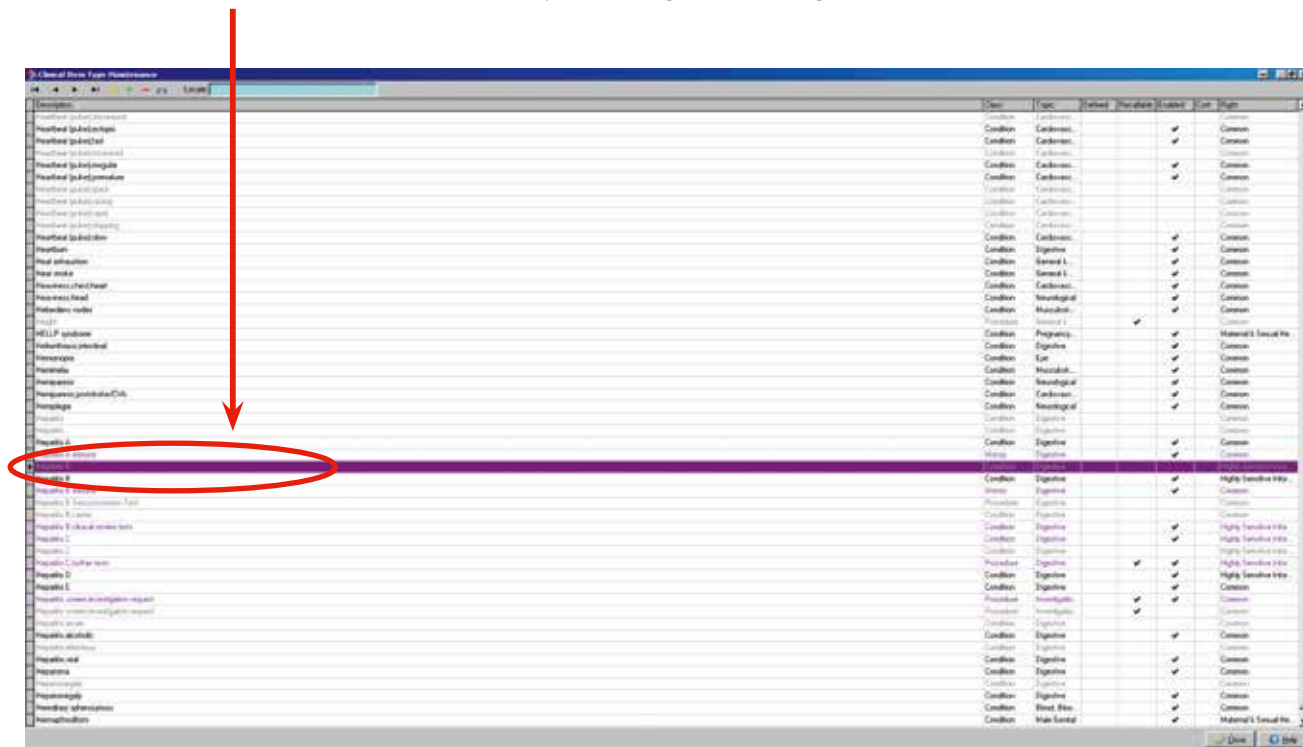
Using the example of the clinical item **Hepatitis B**, follow Steps 1–16 to modify a clinical item;



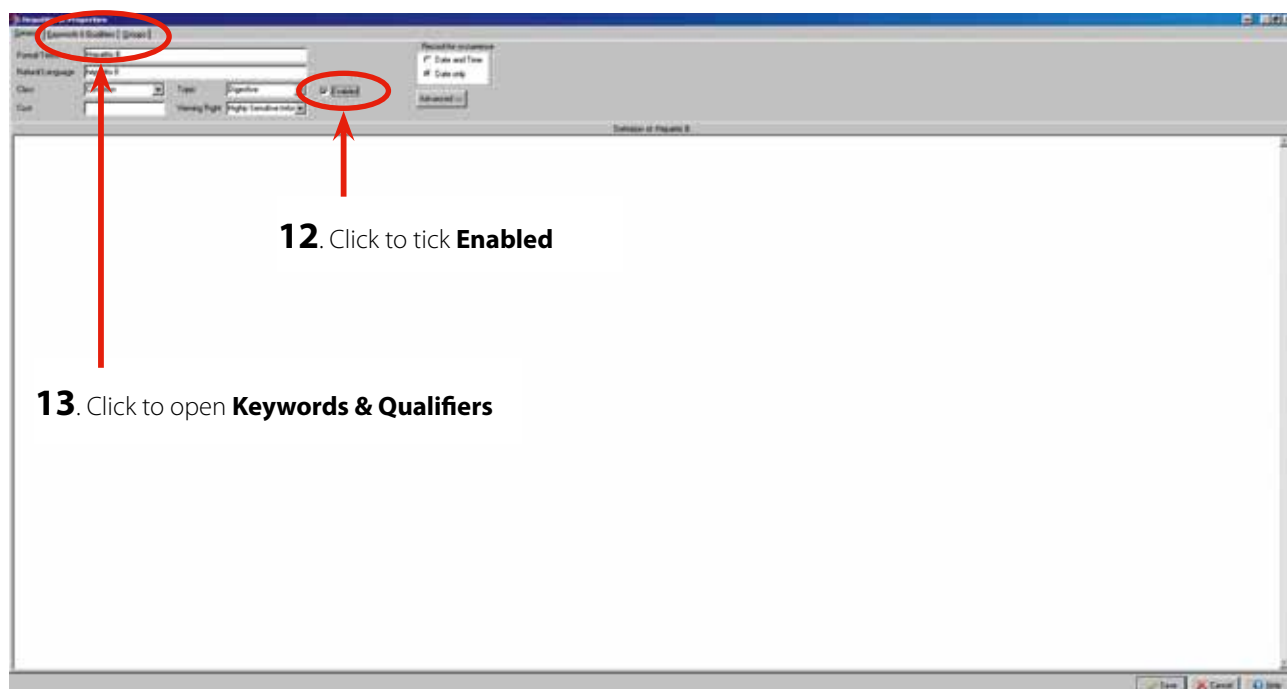
4. Begin typing the name of the clinical item– **Hepatitis** in **Locate**



11. Double click on the cloned clinical item to open the **Hepatitis B; Properties**



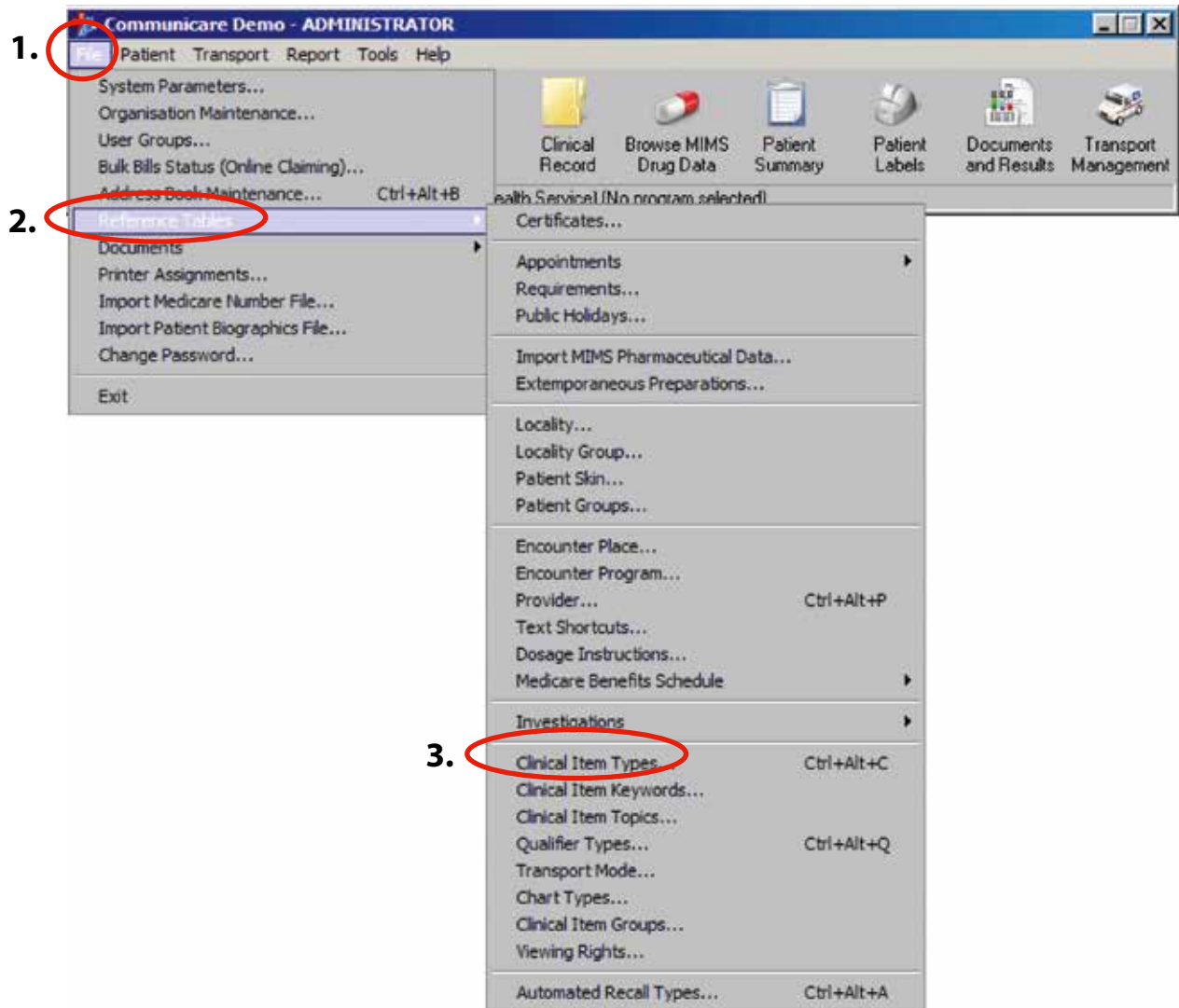
12. Click to tick **Enabled**



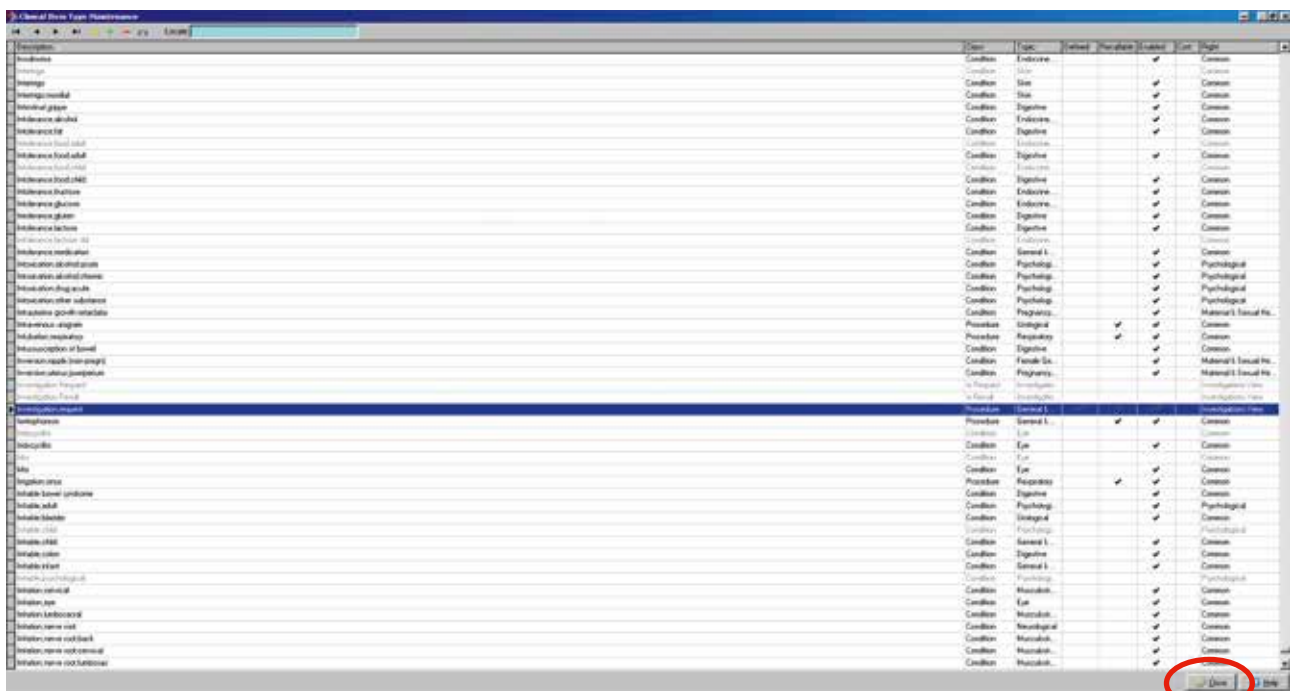
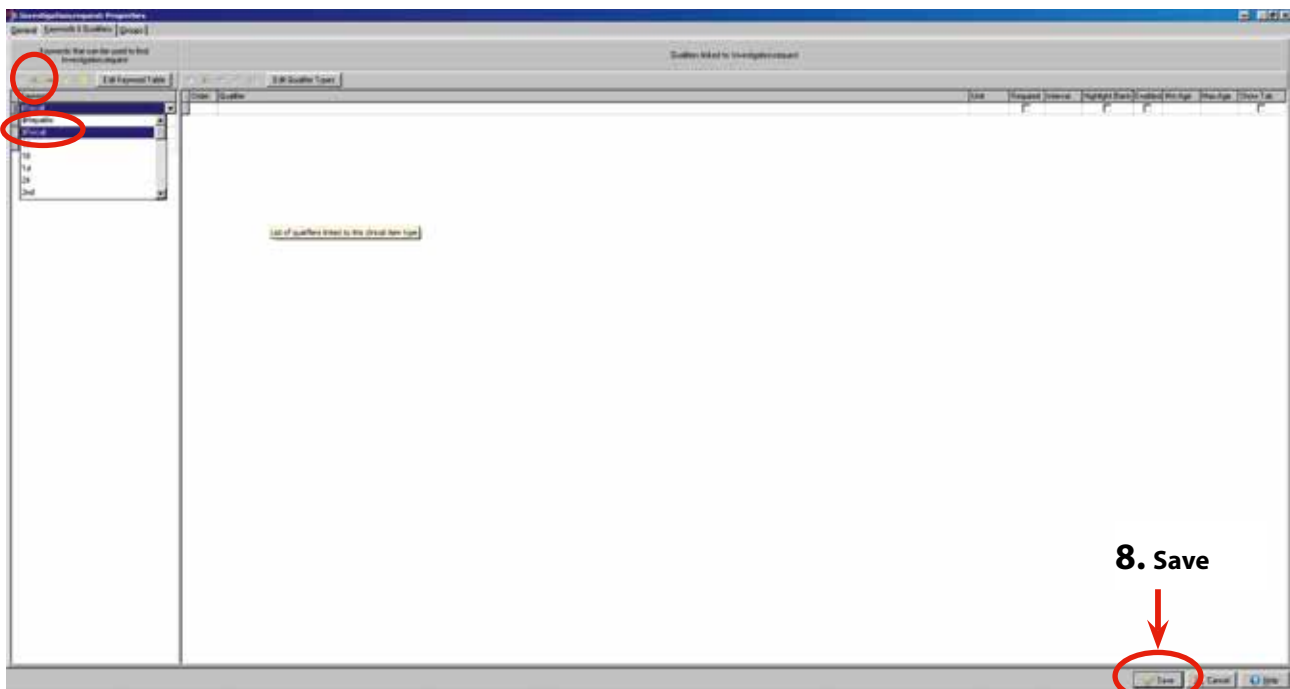
13. Click to open **Keywords & Qualifiers**

ADDING A RECALL TO THE ADD A MANUAL RECALL ICON

Using the example of clinical item **Investigation;request**, follow Steps 1–9;



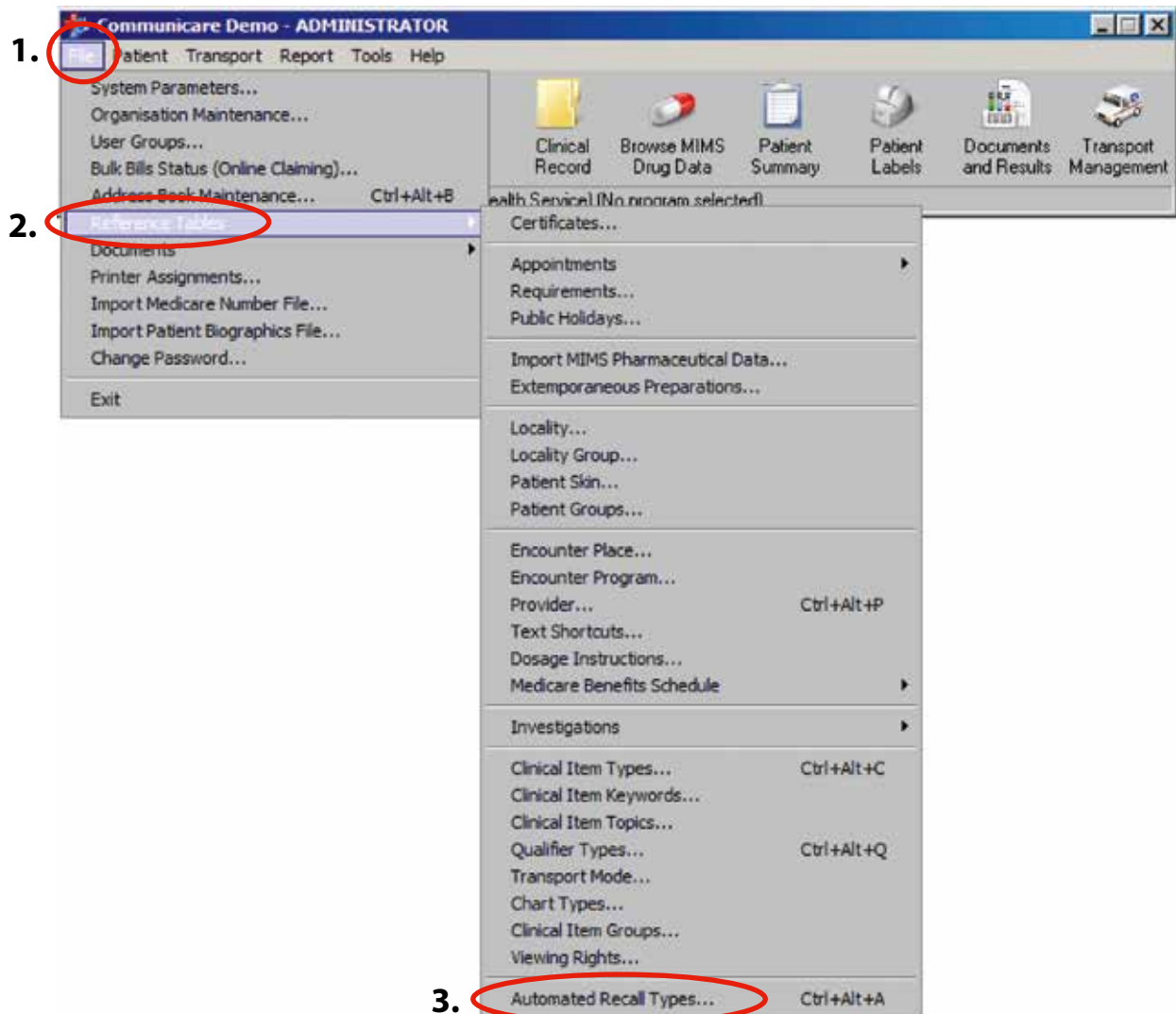
7. Click  and select **\$Recall** from the options available



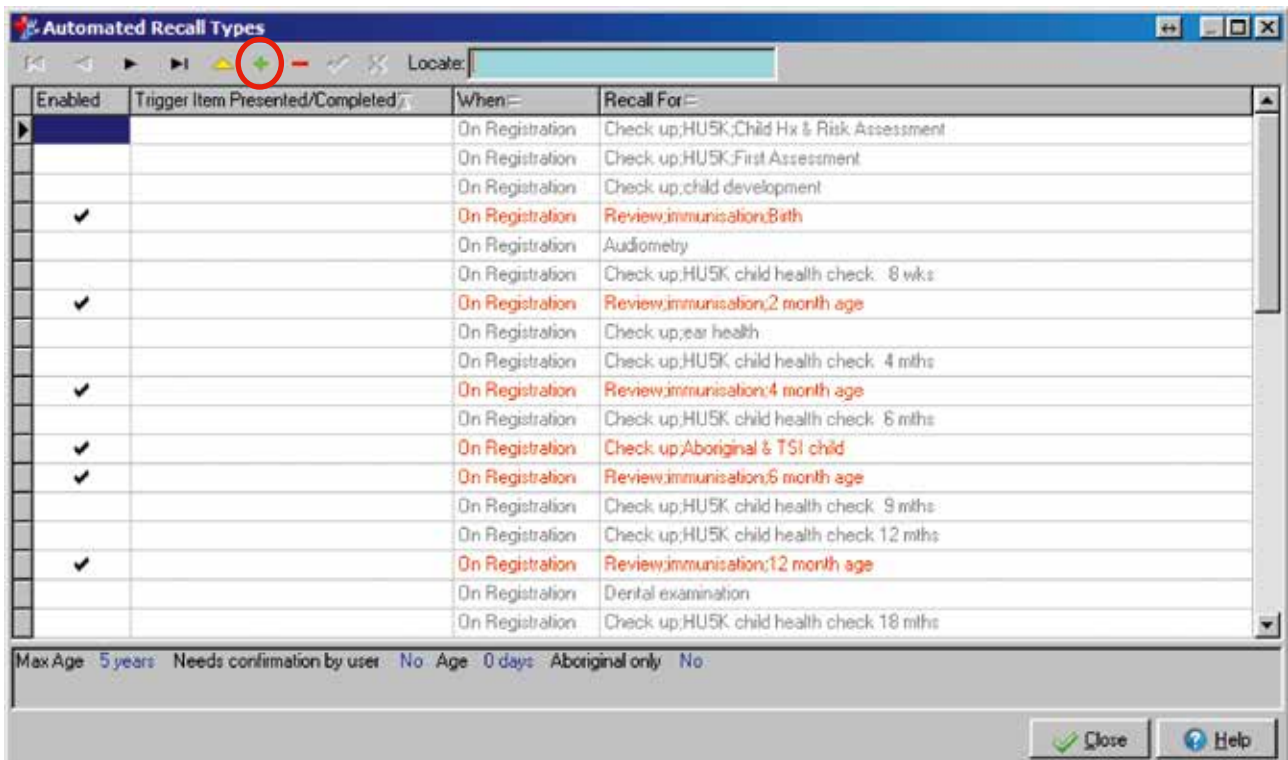
AUTOMATED RECALLS

To generate a recall for an **Investigation;request** when the **Hepatitis B;clinical review tests** clinical item has been completed, an Automated Recall needs to be created.

Follow Steps 1–8;



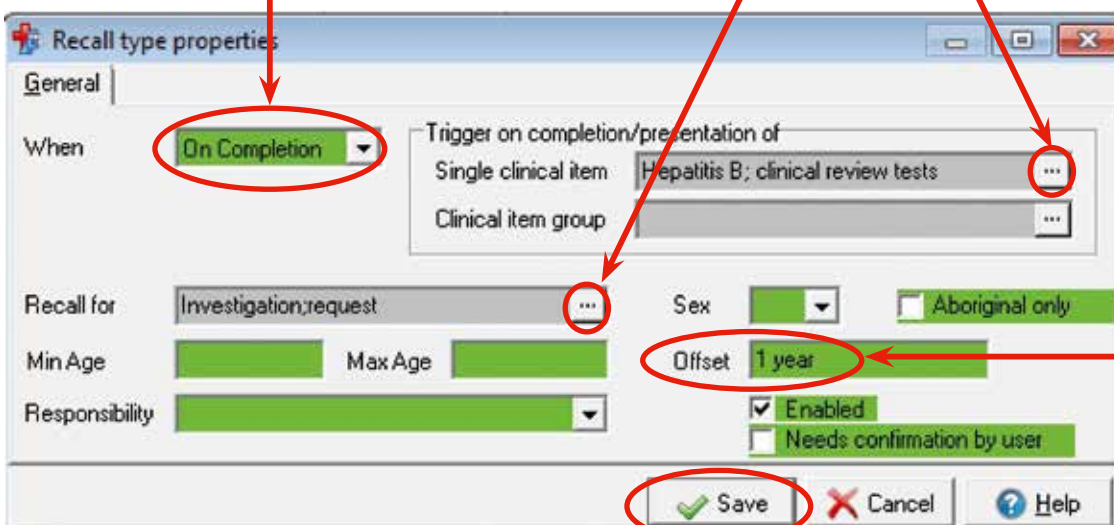
4. Click on 



The **Recall Type Properties** window will open;

5. Choose **On Completion** from the dropdown list

6. When you click on the ellipsis, the **Clinical Terms Browser** window will open. Search and select the **HepatitisB; clinical review tests** clinical item and then the **Investigation;request** clinical item.



7. The **Offset** needs to be set for 1 year

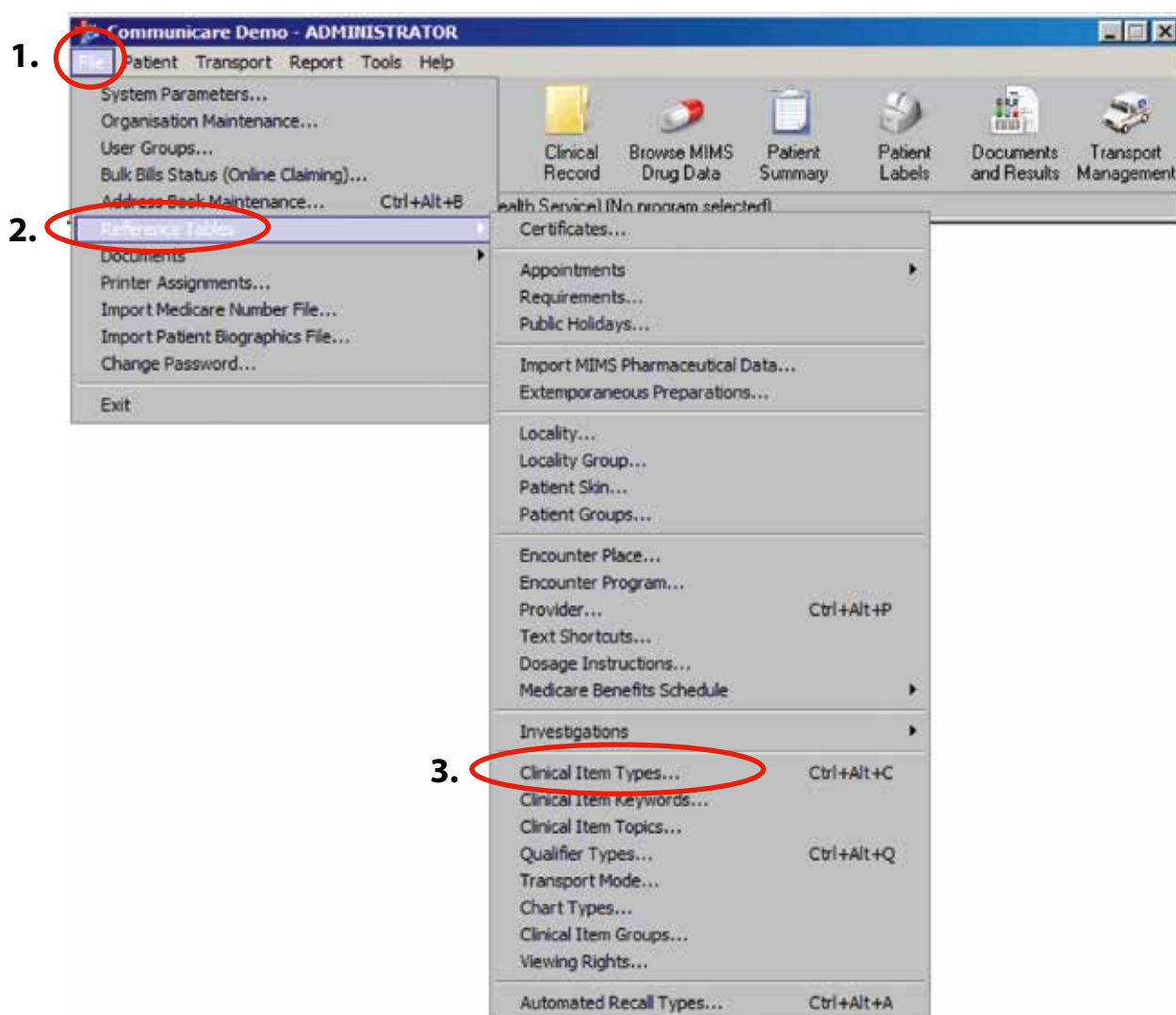
8. Click **Save**

DISABLING CLINICAL ITEMS

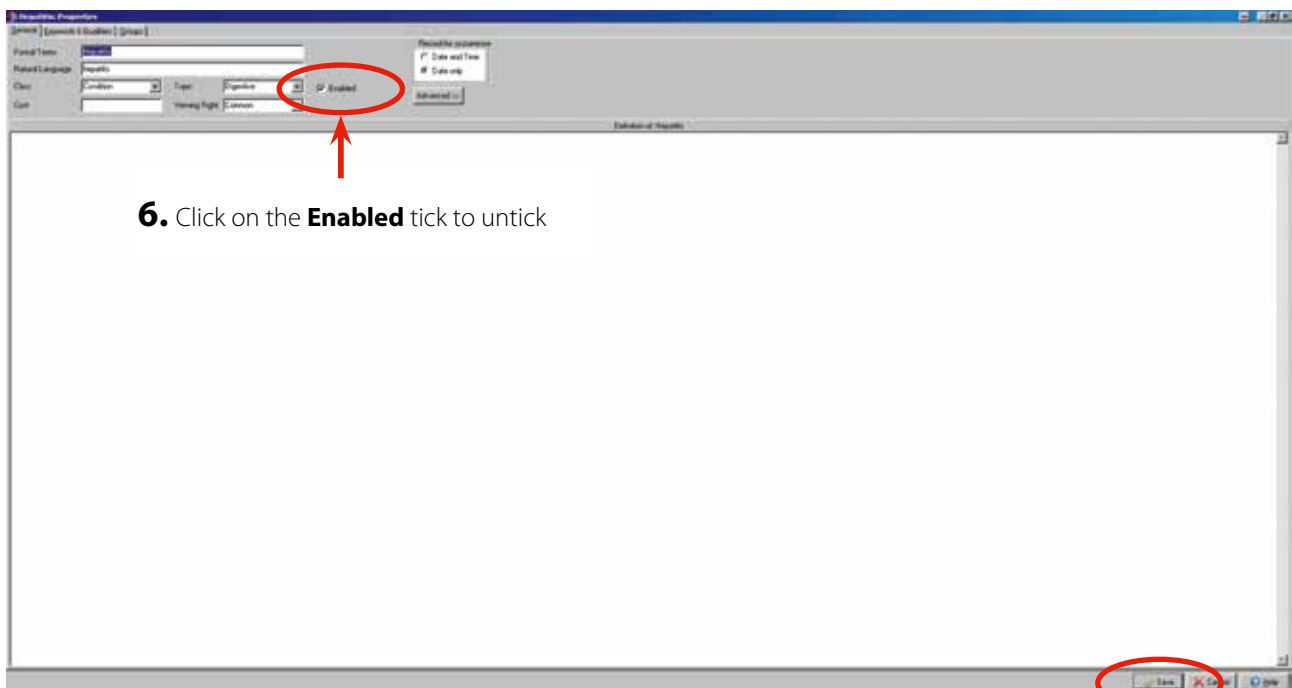
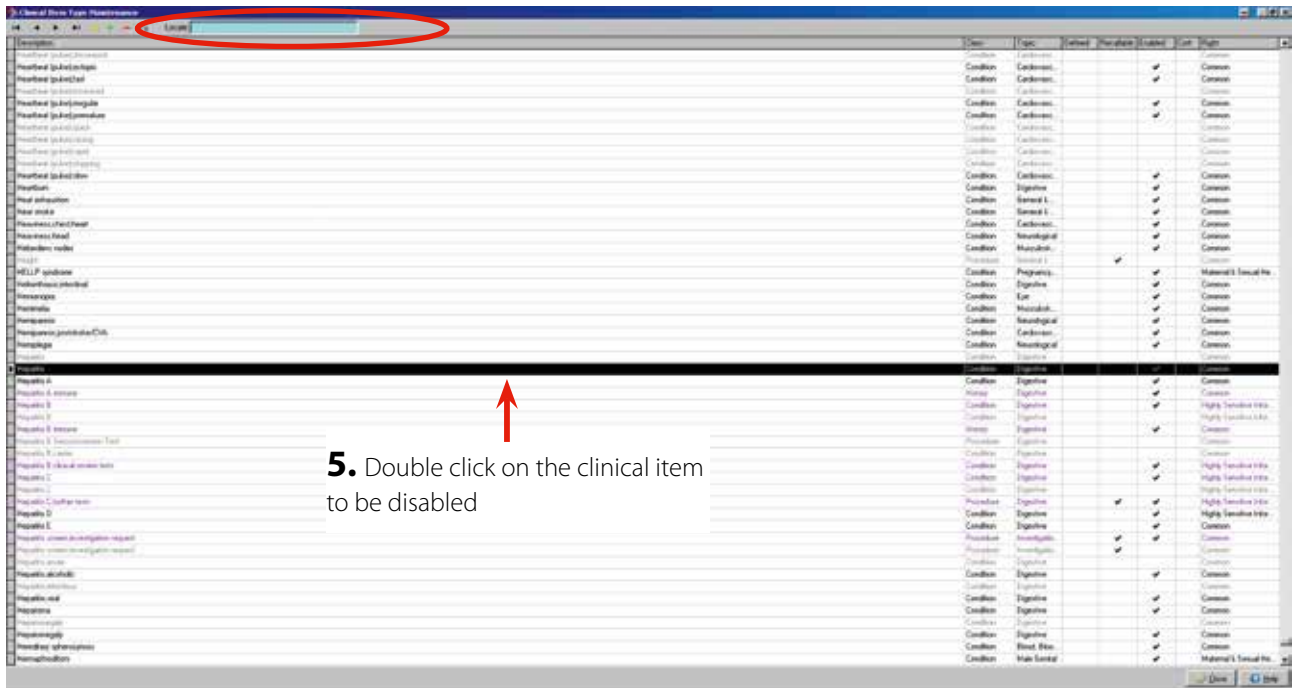
To encourage the most appropriate documentation of a diagnosis of Hepatitis, the following list of clinical items maintained by Communicare requires disabling;

- Hepatitis
- Hepatitis B;carrier
- Hepatitis;infectious
- Hepatitis;viral

To do this, follow Steps 1–8;



4. Type **Hepatitis** in the **Locate** search box.



Repeat Steps 5–7 to disable each clinical item listed.

