

Managing Patient Flow

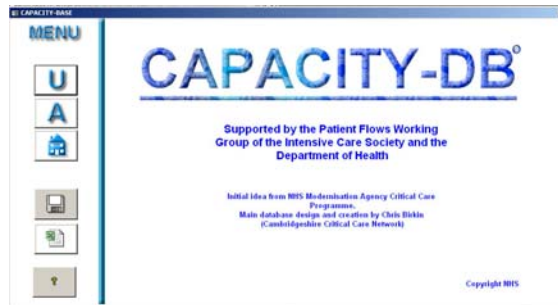
*Information for
Data Collectors
and Using the
Database*



Getting Started (Database V3.01)

It is a good idea to experiment with the database and spreadsheet before spending lots of time inputting data. Input a day or two to get the feel of how it works, and what it produces. You can always reinstall the database so that you can start afresh with real data.

After successfully installing the database and starting for a first time, you should then see this front screen.



The buttons that allow you to put data into the database are on the left hand side under 'Menu'.

U - Unit information - click to input information about the unit. You only need to do this once. This also sets the daily start time of data collection and you can add extra occupancy types

A - Audit Information - this is where you input the main audit data for each bed for each hour

Home - brings you back to this screen. There is one of these buttons on all screens, so use it to come back

Export - use this to save your data to a text file

Excel data - this exports your data to excel, only need to use this if you want to do something extra with your data

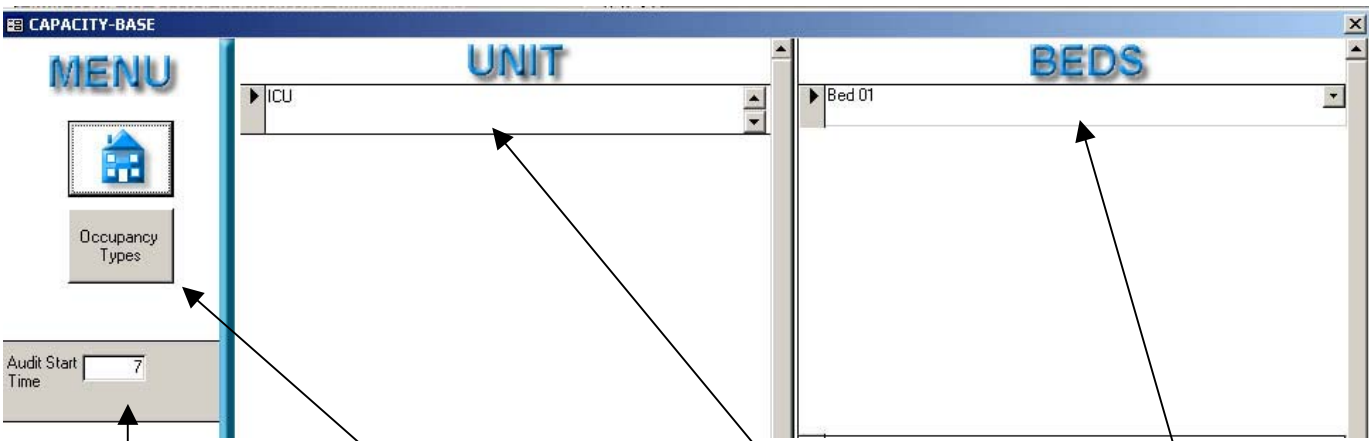
Help - use this to access the help file and supporting documentation

Inputting Unit Information

To make the database reflect your local circumstances, you need to input data which best describes your critical care areas.

- Press the  button on the front screen

You will get the following screen:



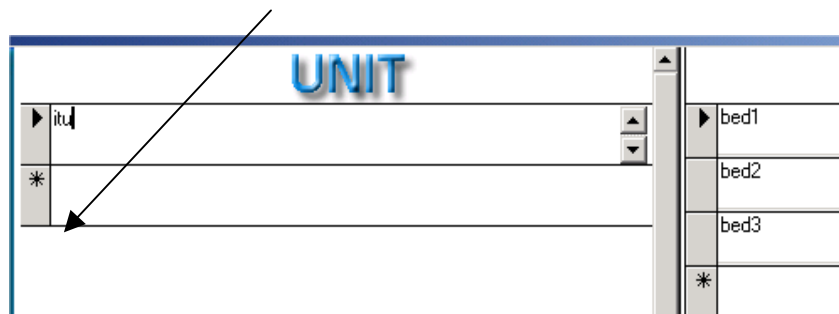
1. Click here to enter the start time that you want your data entry to run from. **You might find it helpful to start at midnight, as this will make your data easier to analyse**


2. Click here to view and add occupancy types (customise data)

3. Click here and enter unit name e.g. ITU

4. Then click here and type the bed references, i.e. bed 1, bed 2 etc.

- Click under unit and enter the unit name.
- Add occupancy types, which are applicable to your unit. See **“Customising Your Data”** overleaf
- Click under in the 'beds' field and enter bed descriptions. When you click in the beds field you will get an information box telling you that you need to enter descriptions. E.g. type 'bed 1' then press enter (return) on your keyboard. You will be asked if you want to add the description to the list, click 'yes'. Then type the next bed name e.g. 'bed 2'. Continue until all beds are entered.
- To put in details for another unit, click in the row underneath where you typed the first unit detail (e.g. itu), it will have a * by it.



Type the name of the second unit and put in beds descriptions as before. When you have finished inputting information for all units that you want, press the  button.

Customising Your Data

You will notice that there are 7 categories for recording data on CLOSED beds

- CLOSED CLEANING
- CLOSED INFECTION
- CLOSED STAFF VACANCIES
- CLOSED STAFF RATIOS
- CLOSED EQUIPMENT
- CLOSED FUNDING
- CLOSED OTHERS

You have the option to clarify the “awaiting discharge” information. By sub-dividing this section you can capture data to calculate the time patients are delayed in being transferred out of critical care. If you know the wards where regular delays occur you can tailor the database to record this information. E.g. if wards X and Y routinely delay patients waiting to be discharged to them you can update the database to show this information.

Click on the “Occupancy” tab as shown on page 3 step 2. Overwrite the “AWAITING DISCHARGE” with the first ward details. Any further wards can be added on the last row of the table where the appropriateness code is 0. Change the appropriateness code to 2.

APPROPRIATENESS	OCCUPANCY-TYPE
4	EMPTY
3	CLOSED>STAFF VACANT/ABSENT
3	CLOSED>STAFF RATIOS
3	CLOSED>OTHERS
3	CLOSED>INFECTION
3	CLOSED>FUNDING
3	CLOSED>EQUIPMENT
3	CLOSED>CLEANING
2	AWAITING DISCHARGE
1	at=LEVEL 3
1	at=LEVEL 2
1	at=LEVEL 3
1	at=LEVEL 2

Overwriting “AWAITING DISCHARGE” with “Awaiting discharge to ward x” will add clarity.

Change code to 0 For “Awaiting discharge” details

Appropriateness codes range from 1 – 4 and make the program categorise your data correctly. Any “AWAITING DISCHARGE” has the appropriateness code 2, data associated with “CLOSED” requires 3 as the accompanying appropriateness code and empty beds always has code 4.

Flexible Units

A growing number of units run flexibly to accommodate both level 2 and level 3 patients. A matrix can be used to demonstrate the capacity and spare occupancy of a flexible unit; however, some adjustment needs to be made to reflect true occupancy levels. The example below shows that a unit that can operate safely with 2 level 3 pts and 4 level 2 pts (The greyed out cells show theoretical capacity that is capped as the unit only has 6 physical beds).

Funded for: 2 x L3 4 x L2		Level 3						
		0	1	2	3	4	5	6
Level 2	0	✓	✓	✓	✓	✓		
	1	✓	✓	✓	✓			
	2	✓	✓	✓	✓			
	3	✓	✓	✓				
	4	✓	✓	✓				
	5	✓	✓					
	6	✓	✓					
	7	✓						
	8	✓						

If your unit operates flexibly, a similar matrix is useful to help you to fine tune the data, which you generate locally. Indeed, most units calculate their capacity using a similar approach, quite often using a “points system”, and the matrix is a graphical variation of that. The nurse or medic in charge of a flexible unit knows exactly how many patients at what level of care their unit can accommodate at any given time, however expressing the mechanism behind that conclusion is rarely documented on paper. The matrix is merely a way of expressing a flexible unit’s bed availability.

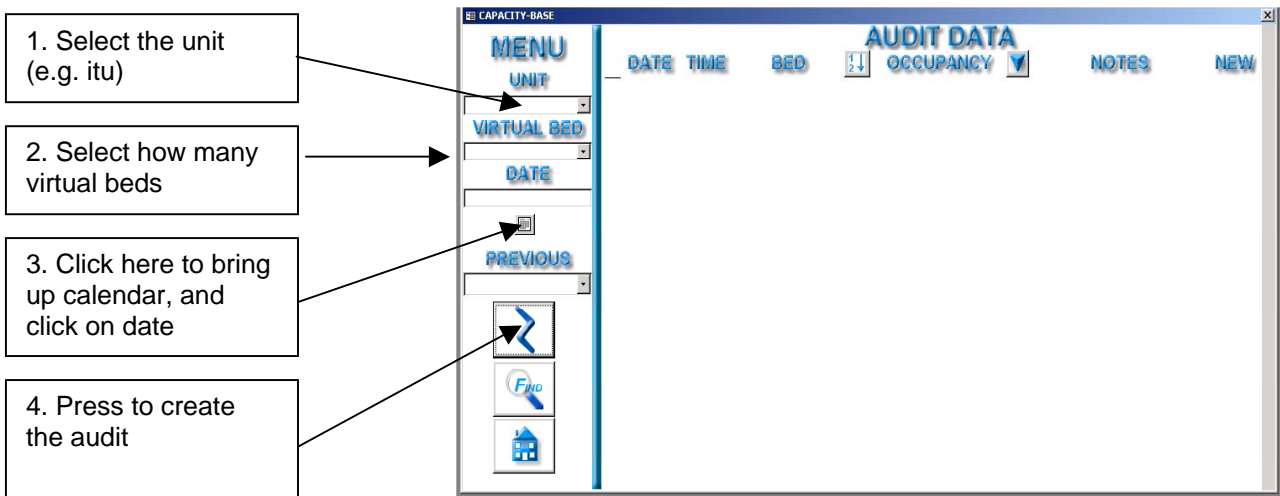
Under certain conditions, if the unit is not full, there will be “Empty level 3” or “Empty Level 2” available capacity. Just showing “Empty” may give the impression that your unit is less occupied than it is. Those beds that are empty yet unable to take a patient may be classified as “Empty – unfunded”. Adding in these additional variables can be carried out using the same method documented on the previous page. Ensure the appropriateness code is set to 4.

It is strongly recommended to have a trial run with some dummy data if using the patient flow tool in a flexible unit, and to be familiar with your own matrix and definitions, as these can be adapted to suit local conditions and unit management.

When you’ve completed all your unit customisation, and you’ve familiarised yourself with the concept of flexible units, you’re ready to start keying data. **You cannot add any further customisation elements once you have started to key data.**

Inputting audit data

The data collected on bed forms and virtual bed forms for each day is entered into the database. When you press the **A** button on the home screen, it brings up the audit screen




Follow the steps 1-4 above and the database will generate records for you to complete for the beds and virtual beds for the specified date.

The screenshot shows the 'AUDIT DATA' table with columns: DATE, TIME, BED, OCCUPANCY, NOTES, and NEW. Three callout boxes provide instructions:

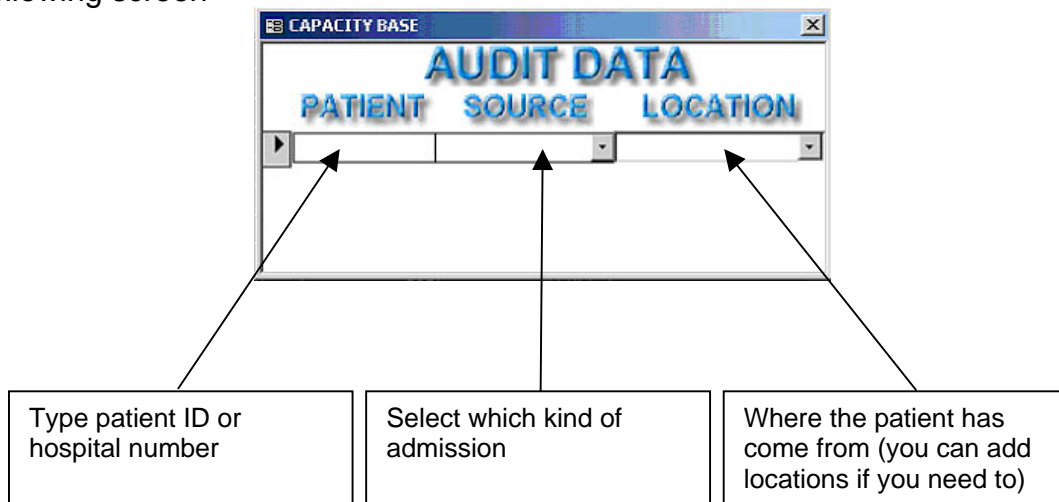
- To input data select the appropriate status of the bed (e.g. level 3) by clicking here - points to the OCCUPANCY column.
- To save having to select the same option for each hour, you can fill down how many rows you want by pressing here, and typing the number of rows e.g. '23' will fill the same option for a whole day - points to the '1 2' icon in the OCCUPANCY column.
- Click to input information for a new admission - points to the 'NEW' column.

DATE	TIME	BED	OCCUPANCY	NOTES	NEW
21/05/2004	7	bed1			<input type="checkbox"/>
21/05/2004	8	bed1			<input type="checkbox"/>
21/05/2004	9	bed1			<input type="checkbox"/>
21/05/2004	10	bed1			<input type="checkbox"/>
21/05/2004	11	bed1			<input type="checkbox"/>
21/05/2004	12	bed1			<input type="checkbox"/>
21/05/2004	13	bed1			<input type="checkbox"/>


You are able to sort the data in a different way (if you have collected the data on a sheet for each hour, rather than a sheet for each bed). To do this, press the  button to the right of bed. Press it again to change back to the original format.

You can make any notes that are necessary by clicking and typing in the appropriate 'notes' row.

If you have a new admission, click in the small square at the correct time, under 'New', you will get the following screen-





When you have entered all the details, click the 'X' in the top right hand corner of the window to close the new admission window and get back to the audit screen.

When you have finished inputting for the date in question, press the  button to return to the home screen.



Virtual beds

It is not possible to input virtual bed information once the day's data has been recorded. You can overwrite data to solve this issue by following the steps below.

- From the home screen press 'A' to get to the audit screen
- Select the 'Unit' in question
- Under 'Previous', click the arrow and select the date that you want to add extra information for.
- Click  to bring up the data that you have already entered.
- Click the calendar icon and select the same data so that it appears in the 'Date' box.
- Select how many virtual beds you want to add in.
- Click , you will get a message box checking that you are doing what you want to do, press 'No'
- The whole days data can be re-submitted and the virtual bed information now keyed.



Checking and changing previous data

If you have input data and want to change it or check what was input

- From the home screen press  to get to the audit screen.
- Select the 'Unit' in question.
- Under 'Previous', click the arrow and select the date that you want to add extra information for.
- Click  to bring up the data that you have already entered.
- Any changes that you make will automatically be saved.

Exporting data

There is a facility to export data to an excel or text file. This is only necessary if you want to use the data in a different way. To produce the normal graphs you do not need to export the data.

If you do want to export data, click the  or the  button on the home screen, and type in some valid dates. There is a limit to how much data can be exported to excel at one time due to the limitations of excel, but you can always export to a number of separate files. If you export as a text file all the data is exported.

Backing up data

As with any computer files, it is important to have a good system to back up the data in case anything happens. The whole installation directory can be copied at appropriate times to ensure there is a back up available should it become necessary.

If you are making any significant changes to your data, it would be a good idea to back up the data. The file that is most important is CAPACITYDB-97-V2.