

# FNS Student User Guide

# Be competent, be safe

supporting education and healthcare providers in the UK in meeting the new NMC Future Nurse standards in the areas of healthcare numeracy and drug dosage and prescribing calculations

# STATEMENT ON COGNITIVE COMPETENCE DEVELOPMENT

Where the terms 'competence' or 'competency' are used within safeMedicate and its associated documentation including user guides, sales and marketing materials and website content, we refer explicitly to Cognitive Competence as defined by the European Parliament (2008)<sup>1</sup> in its recommendations on the establishment of a European Qualifications Framework for Lifelong Learning. In this sense, Cognitive Competence relates only to the development and assessment of knowledge of the medication dosage calculation problem solving process and excludes any other forms of competence such as functional, personal, or ethical competence that will be required for safe medication practice in a clinical setting.

<sup>1</sup> European Parliament (2008) Glossary: RECOMMENDATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning. [online] EUCEN. Available from: www.eucen.org/EQFpro/GeneralDocs/FilesFeb09/ GLOSSARY.pdf [Accessed 28 September 2009]

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# THE SAFEMEDICATE COGNITIVE COMPETENCE MODEL

safeMedicate facilitates the learning and authentic diagnostic assessment of the cognitive competencies that establish the critical foundations of patient care knowledge within the domain of medication dosage problem solving.

Cognitive competence in medication dosage problem solving consists of three inter-related elements as illustrated in the figure below:

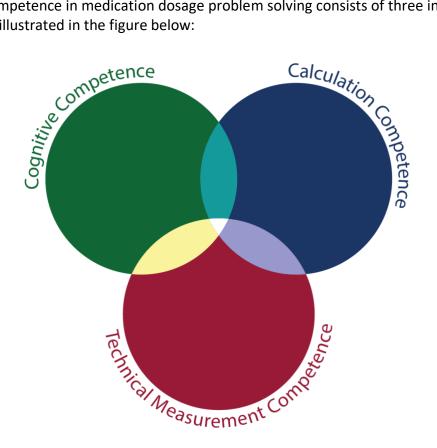


FIGURE 1 - THE SAFEMEDICATE COGNITIVE COMPETENCE MODEL

- Conceptual Competence: which involves correctly interpreting a medication dosage calculation problem and accurately setting up a dosage equation.
- Calculation Competence: which involves correctly calculating an accurate numerical value for the dose or rate to be administered.
- Technical Measurement Competence: which involves selecting an appropriate measurement vehicle and accurately measuring the dose or rate to be administered.

The figure below demonstrates an example of the three competence elements of a liquid medicines dosage problem, which shows:

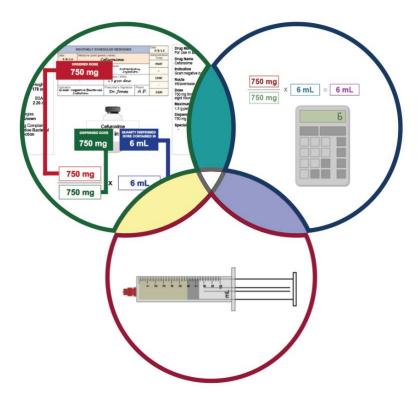
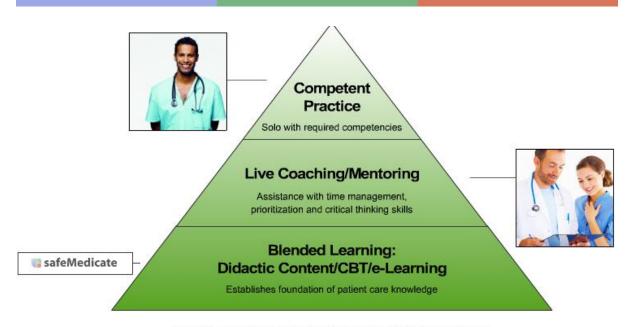


FIGURE 2 - THE THREE COMPETENCE ELEMENTS OF A LIQUID MEDICINES DOSAGE PROBLEM

- **Conceptual Competence:** the extraction of essential numerical information and measurement units from medication orders and labels and the principles of dimensional analysis.
- **Calculation Competence:** the calculation of an appropriate numerical value for the dose to be administered.
- **Technical Measurement Competence:** the technical measurement of the dose to be administered in an appropriate measurement vehicle.

The figure below shows how the *safeMedicate* cognitive competence model locates within the base layer of the Authentic World Hierarchy for Learning.



Hierarchy of Learning = Safe Patient Care Delivery

FIGURE 3 - THE AUTHENTIC WORLD HIERARCHY FOR LEARNING

safeMedicate is designed to support the learning, synthesis and diagnostic measurement of cognitive competence in the critical elements of medication dosage problem solving that underpin the application of further competence development and evaluation within each of the remaining levels of the Authentic World Hierarchy for Learning.

- Competence evaluation during simulated clinical experiences and engagement with human patient simulators.
- Competence evaluation in clinical practice settings under the supervision of an experienced mentor.
- Competence achievement consistent with independent practice.

# **GETTING STARTED**

This latest release of *safeMedicate* is accessible from any Internet connected computer including tablet devices such as iPad and smartphones. Open a web browser and go to the following URL to access the *safeMedicate* home page:

#### www.safemedicate.com

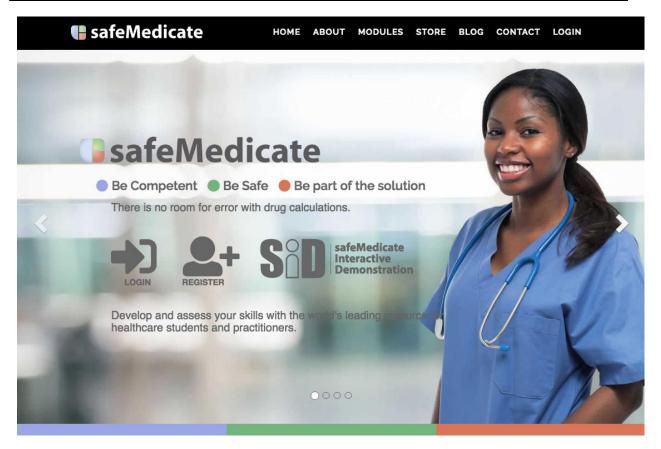


FIGURE 4 – SAFEMEDICATE HOME PAGE

Click on the Login button to get started.

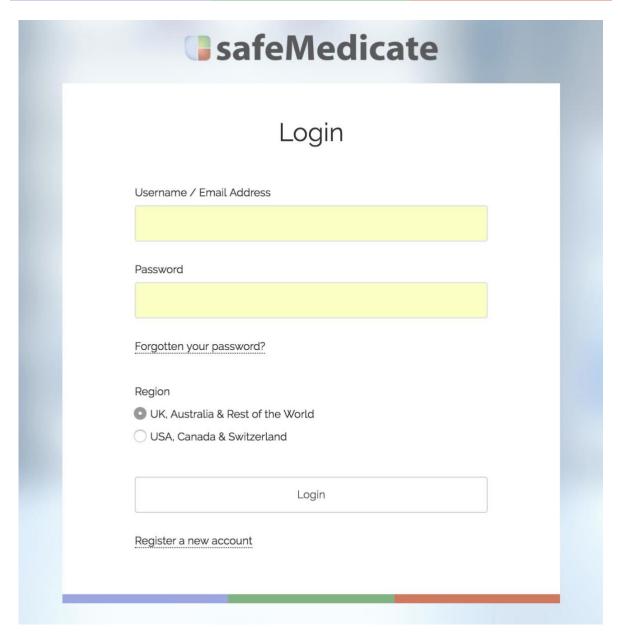


FIGURE 5 - SAFEMEDICATE LOGIN PAGE

At the Login page enter your email address or username and password and click the *Login* button – you will be taken to the safeMedicate Home Page.

# THE HOME PAGE

Notification Area



FIGURE 6 – THE SAFEMEDICATE HOME PAGE

All the features and functions of *safeMedicate* are accessible from the main menu located at the top of this page. We will look at each menu option in detail in the following pages of this user guide.

# **Notification Area**

The left-hand column of the home page is the **Notification Area**. We'll use the *Updates & Notices* section to post news on any new features or changes we plan to safeMedicate or to draw your attention to important information. The *Upcoming Assessments* section is where you'll be alerted to any assessments that have been scheduled for you as in the example above – check this area frequently so that you don't miss an important test!

# **Social Buttons**

At the bottom right of the page you'll find access to our various social channels including Facebook, Twitter, our Blog, LinkedIn, and YouTube. We use Facebook and Twitter to share information with you and to invite you to participate in the various competitions we run throughout the year. Please take the time to like us on Facebook and follow us on Twitter!

# **MAIN MENU OPTIONS**



FIGURE 7 - THE MAIN MENU OPTIONS

The first thing to note is that the Main Menu stays visible wherever you are within *safeMedicate*. This makes it easy to move around from one module to the next. Starting from the left, the menu options are:

- **Home** this is just a quick way to always bring you back to the home page shown in Figure 6.
- **My Record** this is where you access information relating to your usage of *safeMedicate* including your assessment results.
- **Modules** hovering your mouse over this item opens a list of all the *safeMedicate* learning modules you have access to. You'll also find the **Assessments** module which is where you will access any assessments that have been scheduled for you.
- Account Settings this is where you can update any of your details such as email address or change your password. You can also find a list of the *safeMedicate* modules you have access to and the dates on which these accounts will expire.
- **Support** this menu item provides information on who to contact in your local institution for first level support. You can also get access to our *Customer Support Service* where you can get extra help directly from us should you need it.
- **Logout** the very last item on the menu is the logout button. When you're finished working with *safeMedicate* just click here to log out safely.

# YOUR USER RECORD

Click on the My Record menu item to open the page shown below.

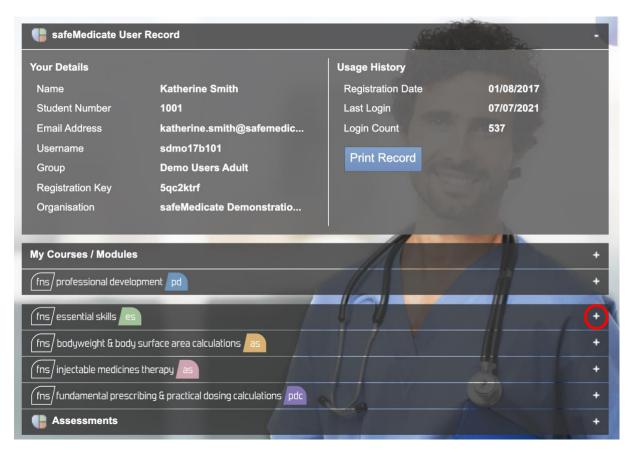


FIGURE 8 - YOUR SAFEMEDICATE USER RECORD

Your **User Record** contains up to 6 sections that are displayed as separate 'panels' of information. The number of sections will depend on which modules you have access to.

- 1. User Record
- 2. FNS Essential Skills
- 3. FNS Bodyweight-Based and Body Surface Area Calculations
- 4. FNS Injectable Medicines Therapy
- 5. FNS Fundamental Prescribing & Practical Dosing Calculations
- 6. Assessments

#### **User Record**

By default, when the record displays only the top section/panel (User Record) is open as in the example. The left side of the panel contains your basic details while the right side of the panel shows your usage history.

To open any of the other panels of information click the + symbol located to the far right of the chosen panel as highlighted in the figure above.

#### **FNS Essential Skills**

The left side of this panel (see figure below) shows your usage history and progress data for the module. Note that progress is shown as a % completion for each section of the module. You will show 100% complete only when you have accessed each page within that module.

The right side of the panel lists your assessment history. These are all the self-administered (practice) assessments you have taken in this module. Note the list shows the assessment date, medication domain and score. To view any of the detailed assessment results click directly over the chosen record. The assessment results are displayed as described in the next section of this guide.

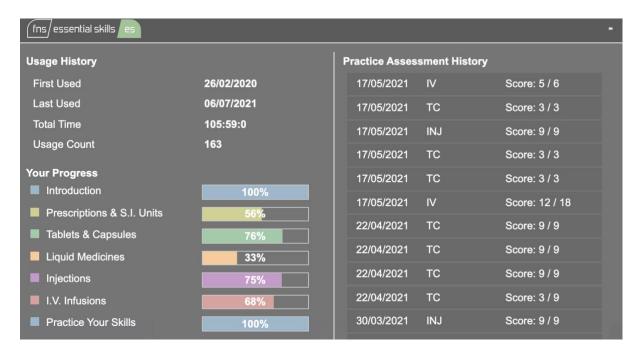


FIGURE 9 - THE ESSENTIAL SKILL INFORMATION PANEL

# **FNS Bodyweight-Based and Body Surface Area Calculations**

Information on this panel is presented in a similar format as for Essential Skills.

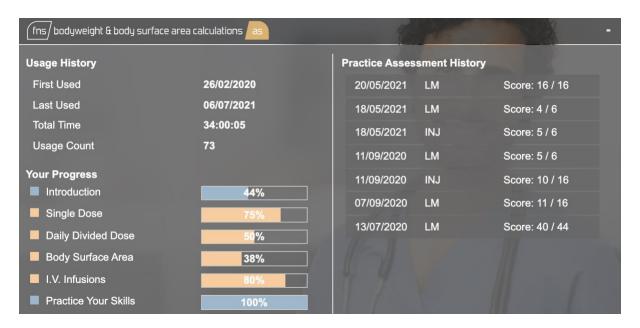


FIGURE 10 – THE ADVANCED SKILLS PEDIATRICS BODYWEIGHT-BASED CALCULATIONS INFORMATION PANEL

# **FNS Injectable Medicines Therapy**

Information on this panel is presented in a similar format as for Essential Skills.

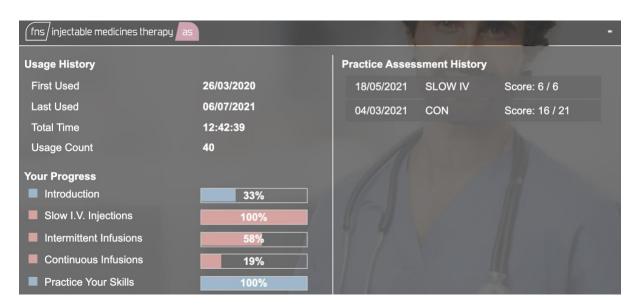


FIGURE 11 ADVANCED SKILLS - INJECTABLE MEDICINES THERAPY INFORMATION PANEL

# **FNS Fundamental Prescribing & Practical Dosing Calculations**

Information on this panel is presented in a similar format as for Essential Skills.

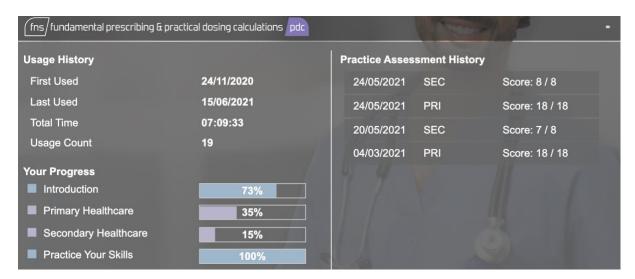


FIGURE 12 ADVANCED SKILLS - FUNDAMENTAL PRESCRIBING & PRACTICAL DOSING CALCULATIONS

#### **Assessments**

The Assessment panel lists assessments that have been scheduled for you by your institution as shown in the example below. Note that the list shows the date of the assessment and the module it is related to.

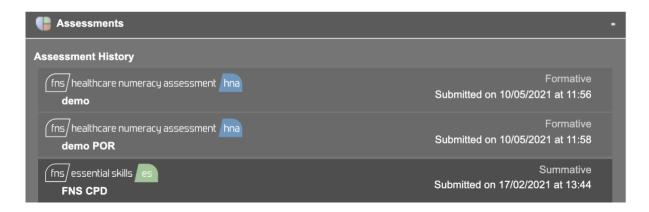


FIGURE 13 - ASSESSMENT HISTORY LIST

To view any of the detailed assessment results click directly over the chosen record. The assessment results are displayed as described in the next section of this guide.

# **Printing Your User Record**

On the *User Record* screen (see Figure 8) click **Print Record** to print a copy of your record. The report will provide a summary of your engagement with each of the modules.

# **Viewing Your Assessment Results and Feedback**

# **FNS Essential Skills | Assessment Summary**

To access your assessment results and feedback click directly over the chosen assessment in the *Assessment History* list (see Fig 12).

An **Assessment Summary** screen is shown that provides a total score and an overview of every question showing how each element (*conceptual, calculation* and *technical measurement*) has been marked. Each question number are color-coded blocks that relate to the module (e.g. FNS Essential Skills) section (e.g. tablets and capsules) and problem complexity level (e.g. unit dose). A key for these can be found at the foot of the **Assessment Summary** page.



FIGURE 14 ASSESSMENT SUBMISSION DETAILS



FIGURE 15 – ASSESSMENT SUMMARY SCREEN

Click the preview icon that's being illustrated below, to view the detailed feedback of your answer.



FIGURE 16 - PREVIEW ICON | ASSESSMENT SUMMARY SCREEN

The figure below illustrates the typical feedback format for an FNS Essential Skills ADA Injections question. Feedback for other medication domains (tablets & capsules, liquid medicines and IVIs) will follow a similar format.

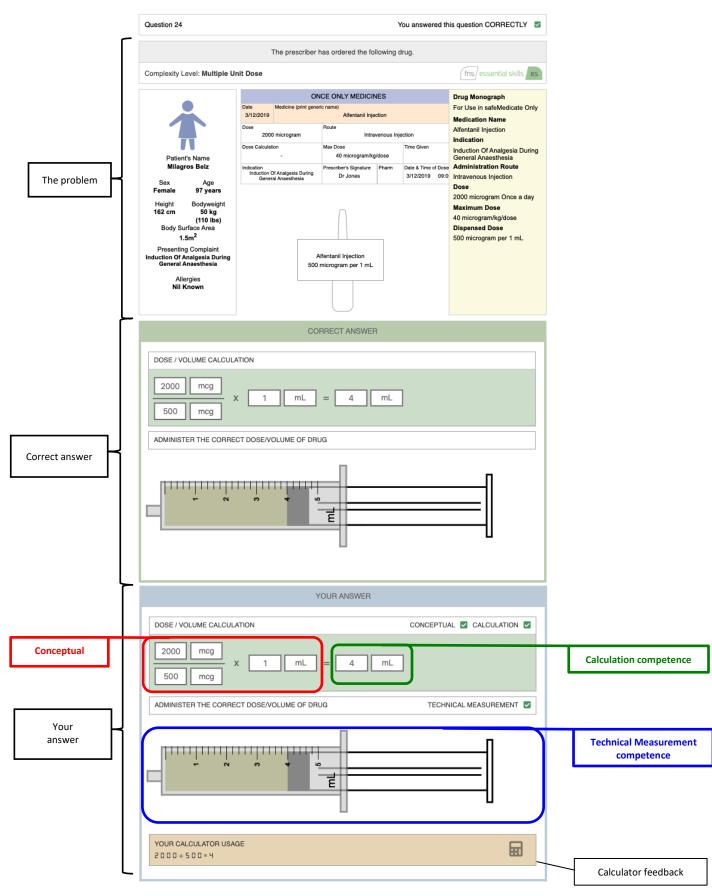


FIGURE 17 – DETAILED FEEDBACK FOR AN INDIVIDUAL QUESTION

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Note that there are 3 main components to the feedback for the question.

- 1. The top portion of the screen re-presents the key elements of the problem i.e., the prescribed dose and the medication container label showing the dispensed dose and quantity/volume this is contained in.
- 2. The centre portion of the screen shows the correct answer to the problem and includes problem setup (conceptual), calculation and technical measurement components.
- 3. The lower portion of the screen shows your answer to the problem and affords a discrete comparison with that of the correct solution above. For illustrative purposes the components of the answer have been highlighted to show how they relate to the components of the competence model.

If you've used a calculator to solve the problem, the keystrokes will be recorded in the calculator feedback section of the screen.

Note that in this example, the student has got the conceptual, calculation and technical measurement components correct.

# FNS Bodyweight & Body Surface Area Calculations | Assessment Summary

Information on this panel is presented in a similar format as for Essential Skills shown in figure 14).

# **FNS Injectable Medicines Therapy | Assessment Summary**

Information on this panel is presented in a similar format as for Essential Skills shown in figure 14).

# FNS Fundamental Prescribing & Practical Dosing Calculations | Assessment Summary

An **Assessment Summary** screen is shown that provides a total score and an overview of every question showing how each element has been marked. Each question number are color-coded blocks that relate to the module and problem complexity level A key for these can be found at the foot of the **Assessment Summary** page.

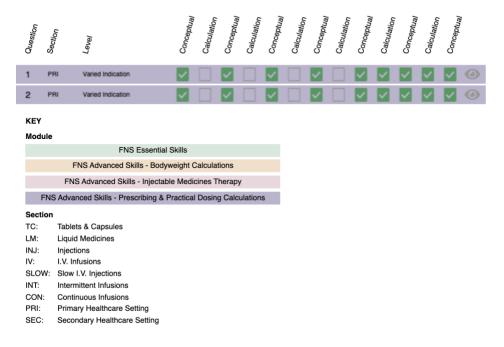
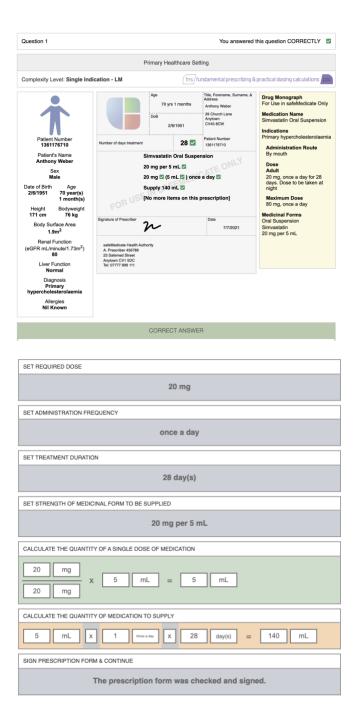


Figure 18 ASSESSMENT SUMMARY – PRESCRIBING

# PRIMARY HEALTHCARE SETTING EXAMPLE



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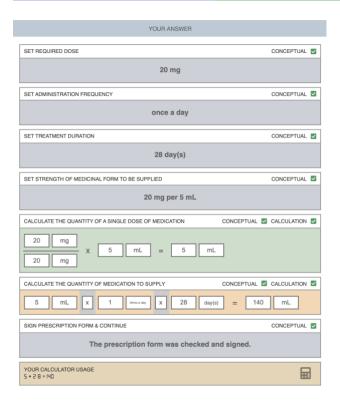


FIGURE 19 PRIMARY HEALTHCARE SETTING EXAMPLE

# SECONDARY HEALTHCARE SETTING EXAMPLE

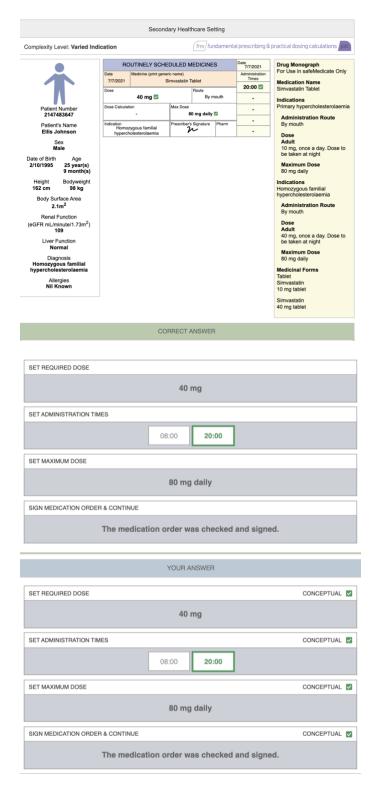


Figure 20 SECONDARY HEALTHCARE SETTING EXAMPLE

# Your safeMedicate Modules

The *Modules* menu item opens a list of all the *safeMedicate* modules you have access to as shown in the figure below.

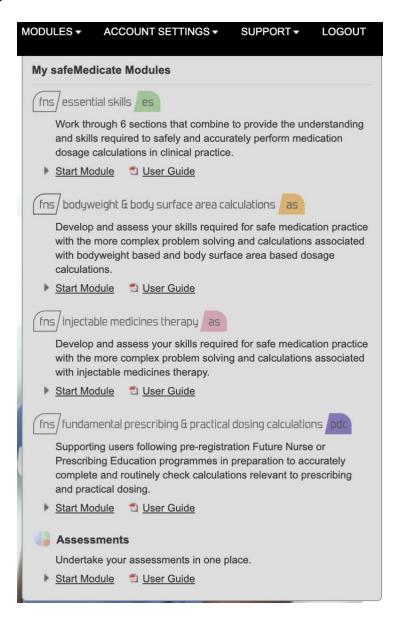


FIGURE 21- THE MY SAFEMEDICATE MODULES MENU ITEM

In the above example, access is provided to FNS Essential Skills, FNS Bodyweight & BSA, FNS Injectable Medicines Therapy, FNS Prescribing & Practical Dosing Calculations and the Assessments module.

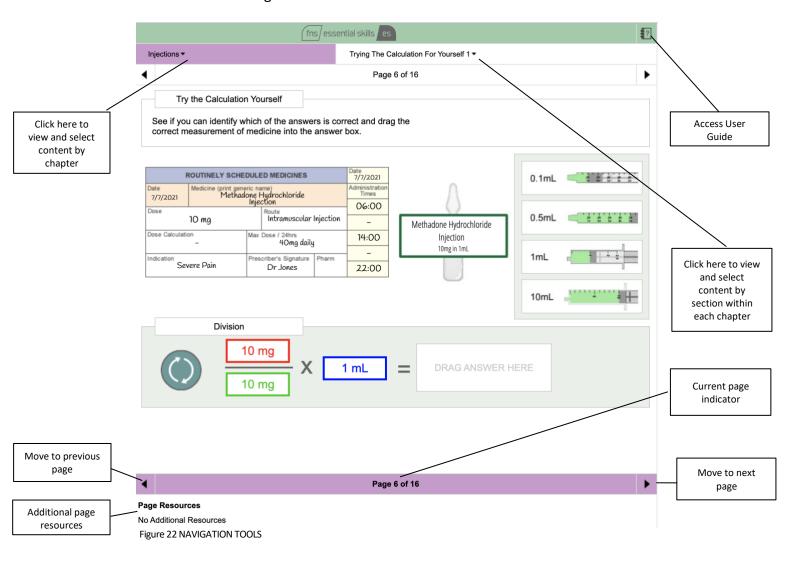
 To open any module, click on the Start Module link associated with the module you wish to use.

# **Working with the Learning Modules**

To open any module, click on the **Start Module** link associated with the module you wish to use. The module will open, and content will begin playing.

# **Page Navigation Tools**

There are several tools available to help you navigate through and work with the module content as shown in the figure below.



If there is additional content associated with the page, it will appear in the **Page Resources** section of the screen. Click on any resource to select and view additional content.

# **Media Playback Tools**

Hover your mouse over the central part of the screen where the content plays to open a set of media playback tools as shown below.

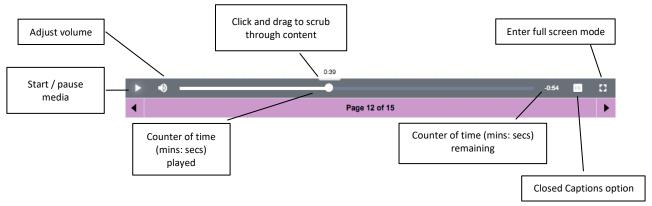


FIGURE 23 - MEDIA PLAYBACK TOOLS

# **Practice Your Skills**

From within the learning zone of each module (Essential Skills, Bodyweight & BSA etc), from the drop-down menu you will find a sub section titled Practice Your Skills. This is where you can set up self-administered assessments to test your knowledge on each component.

As illustrated in the image below, use the options to fine tune your practice assessment.

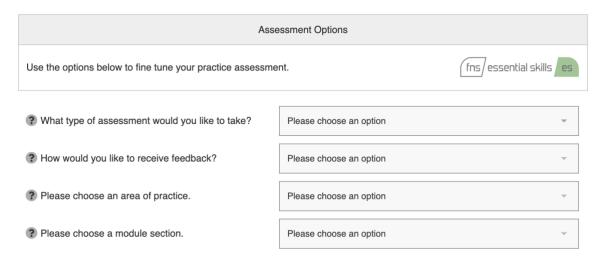


FIGURE 24 PRACTICE YOUR SKILLS OPTIONS

Once you have selected your requirements, pick the complexity level(s) you wish to attempt. Where available, each level consists of 3 questions. When your happy with your selection, click the 'Start Assessment' button on the bottom right of the page and your assessment will begin.

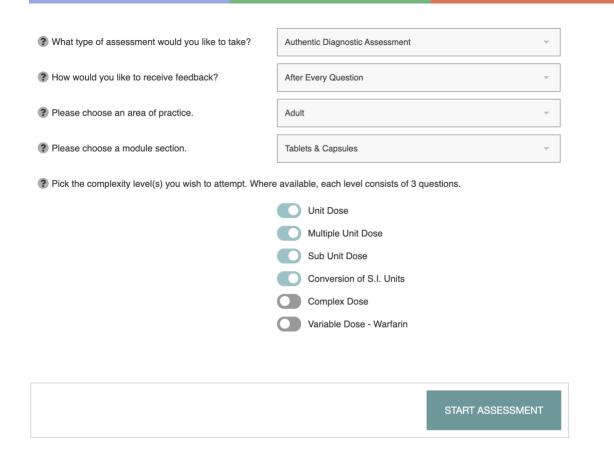


FIGURE 25 PRACTICE YOUR SKILLS - COMPLEXITY LEVELS

To review self-administered (practice) assessment results, refer to figure 9. Note the list shows the assessment date, medication domain and score. To view any of the detailed assessment results click directly on the chosen assessment.

# **Assessments**

# Working with the Assessments Module

All assessments scheduled by your university/institution are accessible and are taken via the **Assessments** module.

- 1. Click on Modules on the main menu.
- 2. On the drop-down menu that opens, click on the **Start Module** link associated with the Assessments module (see Figure 16) to show the screen shown below.

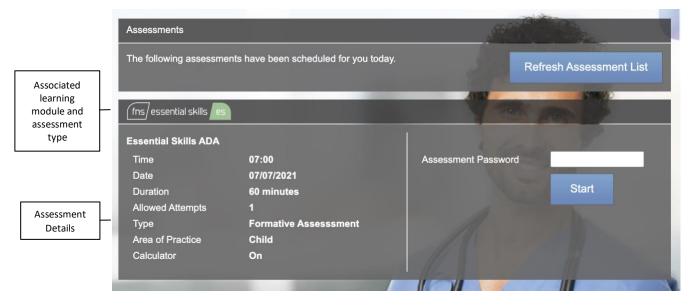


FIGURE 26 - VIEWING UPCOMING ASSESSMENTS

Any assessments that have been scheduled for you will be visible as in the example above.

The title bar of the assessment entry shows the associated learning module and type of assessment – in this example *FNS Essential Skills*.

The left side of the screen shows the details of the assessment including the date, time, duration, allowed attempts, extra time, type (formative or summative), area of practice and whether an on-screen calculator will be available. **Note that you can only sit an assessment on the day and time it has been scheduled for.** 

The right side of the screen is where you enter the **Assessment Password** – your instructor or local *safeMedicate* administrator will give this to you in advance of the assessment.

Please note that the safeMedicate Team do not set these passwords and you must contact your university/institution if you do not have the password for any assessment that has been scheduled.

To start an assessment, enter the Assessment Password and click Start.

#### **Authentic Diagnostic Assessment (ADA) Problems**

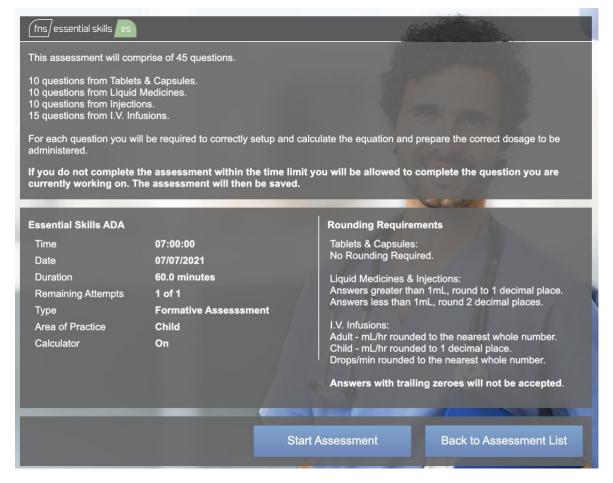


FIGURE 27 - BEGINNING A SCHEDULED ASSESSMENT

After submitting the correct assessment password, you will see the screen shown above. This screen provides more detailed information about the assessment you are about to take and reminds you of any rounding requirements should calculated answers not be a whole number.

# Click **Start Assessment** when you are ready to begin.

If the assessment includes I.V. infusion problems, then you will be invited to choose the form of equation you prefer to work with as in the example below.

Click to select the one you wish to use.

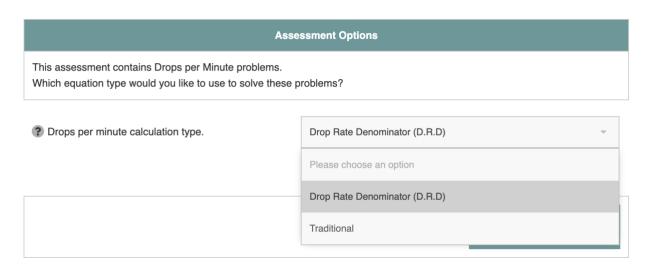


FIGURE 28 - EQUATION OPTIONS FOR IV INFUSION QUESTIONS

# **Tablet and Capsules Questions**

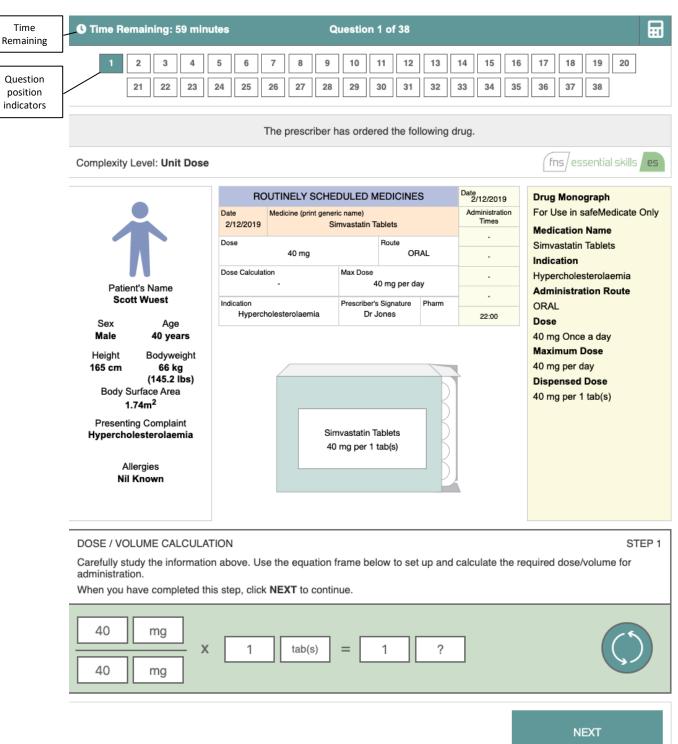


FIGURE 29 - ANSWERING AN AUTHENTIC DIAGNOSTIC ASSESSMENT QUESTION (TABS & CAPS)

In the above example you will see that the numbered boxes at the top of the screen identify your position within the question sequence – in this example Question 1 of 38. Your time remaining to complete the assessment is shown in the title bar of the screen.

In this first step you are prompted to extract the relevant information from the prescription chart and medication product label – insert this information in the equation model by clicking on each text box in turn and typing in the numeric values as shown above.

Click the '?' symbol alongside each numeric value to reveal and select the correct measurement unit for each value as in the figure below.

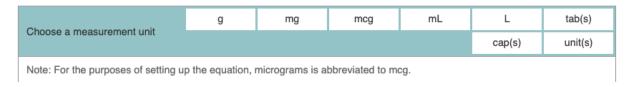


FIGURE 30 - MEASUREMENT UNIT SELECTOR

Calculate your answer and enter the numeric value and the associated measurement unit in the boxes following the equals (=) sign.

# Click Next to proceed.

The second step of a typical tablets and capsules question requires you to represent your answer by clicking on and dragging the correct number of tablets/capsules required into the medicine cup as in the example below.

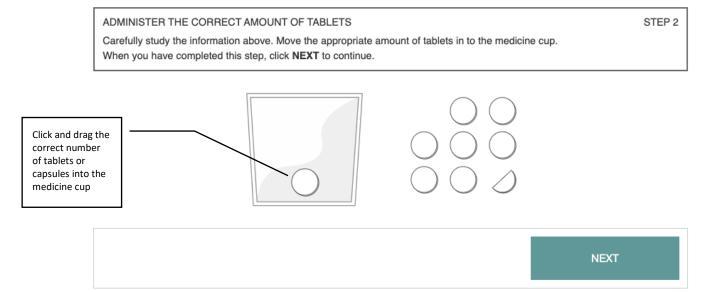


FIGURE 31 - REPRESENTING YOUR ANSWER BY DRAGGING TABLETS TO THE MEDICINE CUP

When you are happy with your answer click on the **Next** button to proceed to the next question – note that as this is an assessment, you will not be told whether you are correct or otherwise until all questions have been answered.

# **Liquid Medicine Questions**

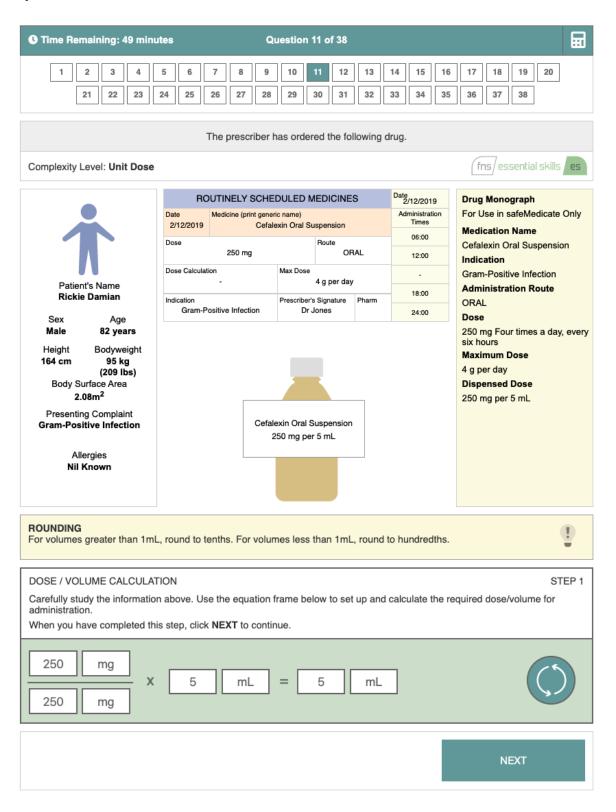


FIGURE 32 - ANSWERING AN AUTHENTIC DIAGNOSTIC ASSESSMENT QUESTION (LIQUID MEDICINES)

In this first step you are prompted to extract the relevant information from the prescription chart and medication product label – insert this information in the equation model by clicking on each text box in turn and typing in the values as in the example.

Click the '?' symbol alongside each numeric value to reveal and select the correct measurement unit for each value (see Figure 23).

When ready, click on **Next** to continue.

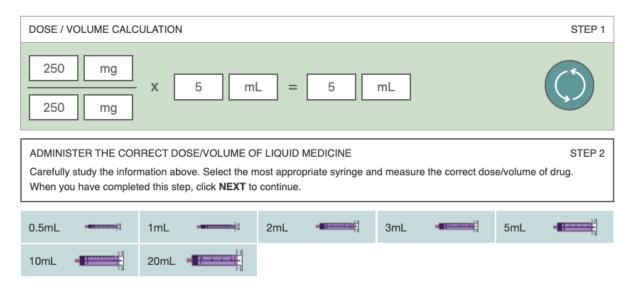


FIGURE 33 - SELECTING AN APPROPRIATE MEASUREMENT VEHICLE

The second step of a typical liquid medicine question requires you to select an appropriate method/vehicle with which to administer the dose. You have the choice of selecting a medicine cup or up to two oral syringes from the seven available.

Select the vehicle of choice and click on **Next** to continue.

The third and final step of a typical liquid medicine question requires you to represent your answer as a volume of liquid in your chosen administration vehicle.

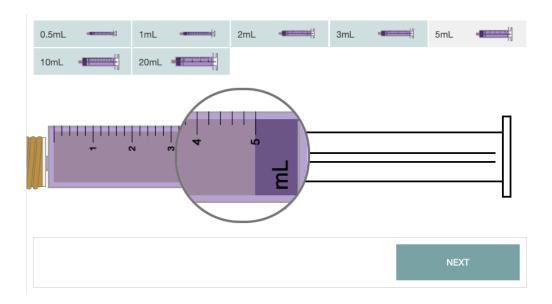


FIGURE 34 - MEASURING THE CORRECT DOSE USING A SYRINGE

Click on and drag the syringe plunger to the right until the desired volume of liquid medicine is drawn into the syringe – note how the syringe barrel is magnified to aid accurate measurement.

In the example above the 5 ml syringe was chosen and the answer represented by drawing the syringe to the **5 mL** graduation. (Please see the next section for how to represent your answer when using the medicine cup.)

When you are happy with your answer click on **Next** to continue to the next question.

Note that as this is an assessment, you will not be told whether you are correct or otherwise until all questions have been answered.

# **Injection Questions**

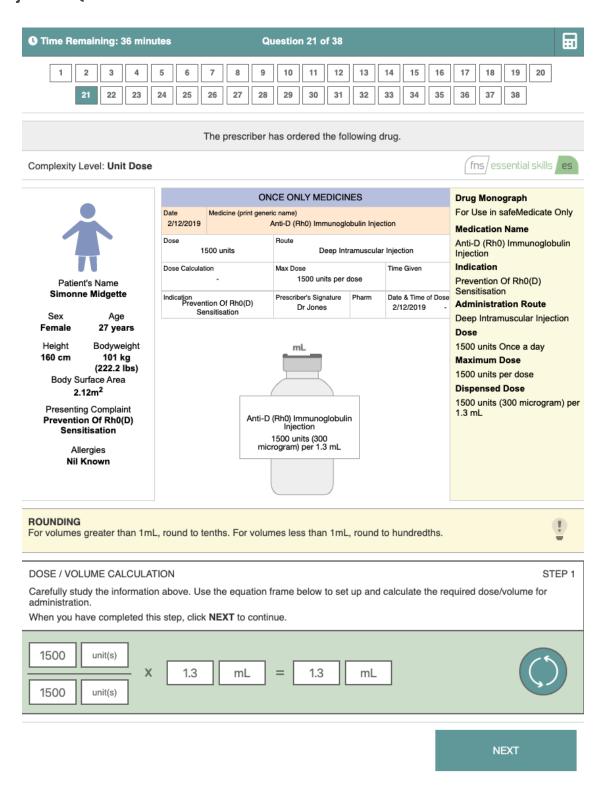


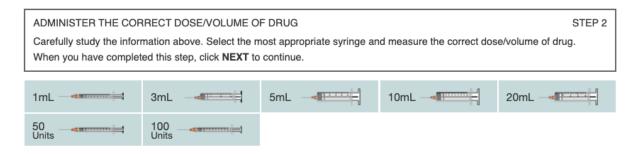
FIGURE 35 - ANSWERING AN AUTHENTIC DIAGNOSTIC ASSESSMENT QUESTION (INJECTIONS)

In this first step you are prompted to extract the relevant information from the prescription chart and medication product label – insert this information in the equation model by clicking on each box in turn and typing in the numerical values.

Click the '?' symbol alongside each numeric value to reveal and select the correct measurement unit for each value (see Figure 23).

Calculate your answer and type that in and select the appropriate measurement units.

When ready, click on Next to continue.



36 - SELECTING AN APPROPRIATE MEASUREMENT VEHICLE

The second step of a typical injections question requires you to select an appropriately sized syringe with which to administer the dose. Note that you have the choice of selecting one of seven syringes.

Click on the syringe of choice to continue.

The third and final step of a typical injections question requires you to represent your answer as a volume of liquid in your chosen syringe.

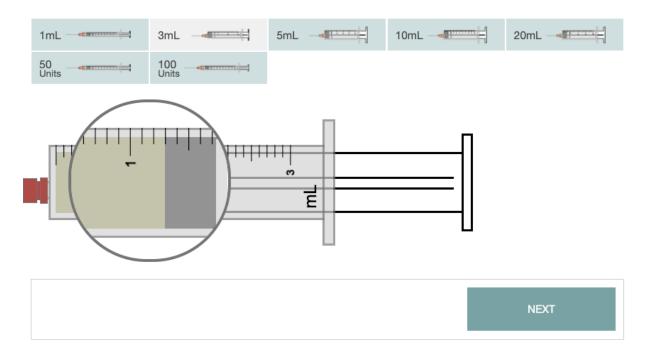


FIGURE 37 - MEASURING THE CORRECT DOSE USING A SYRINGE

Click on and drag the syringe plunger to the right until the desired volume of liquid is drawn into the syringe – note how the syringe barrel is magnified to aid accurate measurement.

When you are happy with your answer click on **Next** to proceed to the next question.

You will not be told whether you are correct or otherwise until all questions have been answered.

# **Intravenous Infusion Questions (Drop Rate Denominator Method)**

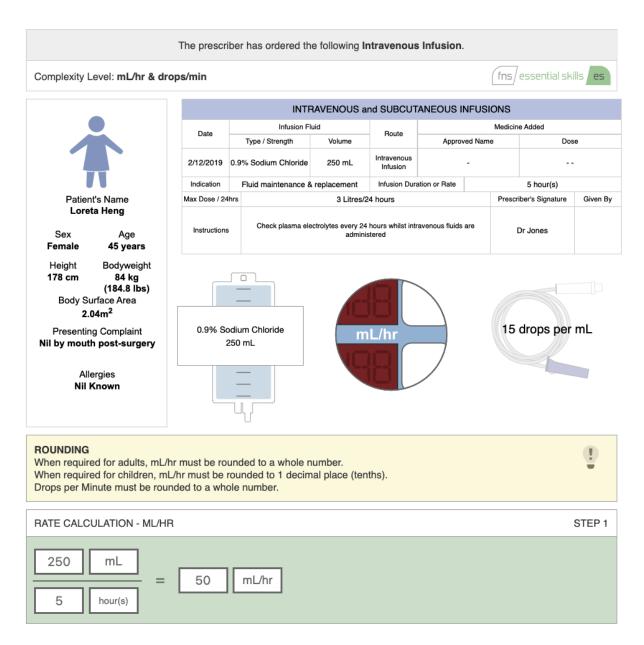


FIGURE 38 - ANSWERING AN AUTHENTIC DIAGNOSTIC ASSESSMENT QUESTION (IVIS)

Solving an IVI assessment question using the drop rate denominator (DRD) method typically involves a two-stage process.

In this first stage you are required to calculate the volume of fluid to be infused per hour i.e. the hourly rate. The first step requires you to extract the relevant information from the prescription chart and intravenous fluid container – insert this information in the equation model by clicking on each box in turn and typing in the values as in the example.

Click the '?' symbol alongside each numeric value to reveal and select the correct measurement unit for each value (see Figure 23).

When ready, click on **Next** to continue.

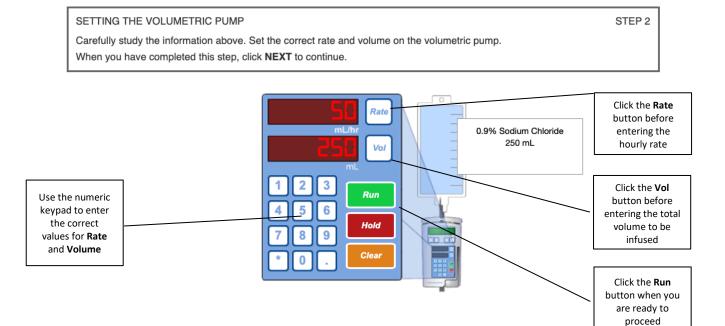


FIGURE 39 – REPRESENTING YOUR ANSWER AS ML/HOUR

In this next step you are required to represent the hourly rate and total infusion volume on a volumetric infusion pump. The above example shows how 50mL of fluid over 5-hour duration is represented.

To enter the hourly rate value on the pump, click on the **Rate** button then click on the appropriate number keys to represent your answer (50 in the above example).

To enter the total volume to be infused on the pump click on the **Vol** button then click on the appropriate number keys to represent your answer.

When you are happy with your answer click on the **Run** button to proceed to the next stage of the problem.



FIGURE 40 – CALCULATING THE DROPS PER MINUTE USING THE DRD METHOD

In this third stage you are required to calculate the number of drops per minute required if you were to deliver this fluid via an IV administration set.

You now must set up the calculation based upon this hourly rate and the drop rate denominator appropriate to the number of drops per mL that the administration set delivers (13 in this example).

Enter the correct numeric values and select the appropriate measurement units for each. Note that you should round the answer up or down depending on the decimal value (round up for .5 and above).

When you are happy with your answer click on **Next** to proceed to the next step.

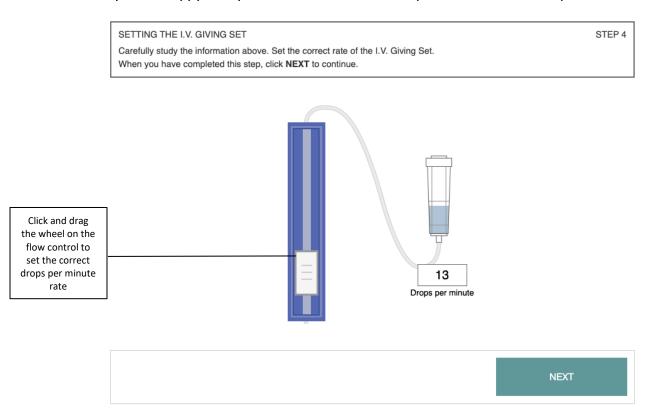


FIGURE 41 - REPRESENTING YOUR ANSWER AS DROPS PER MINUTE VIA AN IV ADMINISTRATION SET

In this last step you are required to represent your answer as drops per minute by adjusting the administration set accordingly.

Click on the wheel of the fluid control mechanism and drag up or down - so that your answer is represented in the drops/min box (13 in this example).

When you are happy with your answer click on **Next** to proceed to the next question.

You will not be told whether you are correct or otherwise until all questions have been answered.

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# **Intravenous Infusion Questions (Traditional Method)**

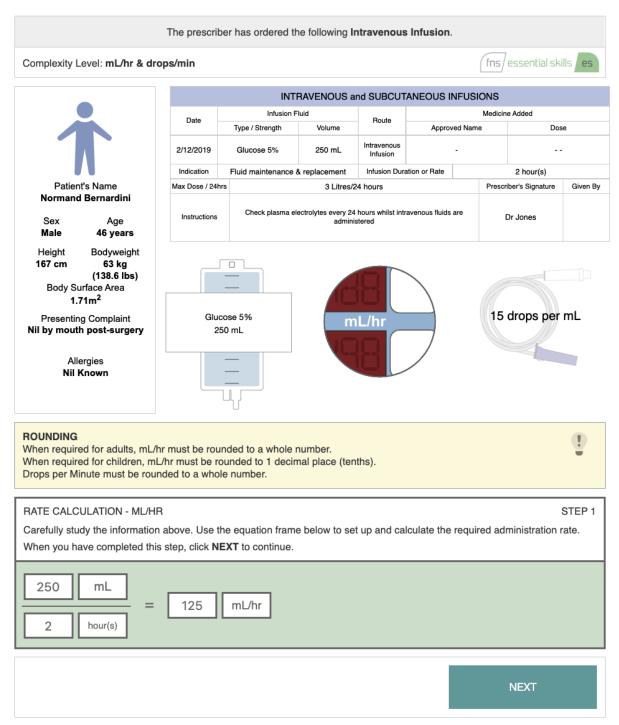


FIGURE 42 - ANSWERING AN AUTHENTIC DIAGNOSTIC ASSESSMENT QUESTION (IVIS)

Solving an IVI assessment question using the traditional or extended formula method typically involves a two-stage process.

In this first stage you are required to calculate the volume of fluid to be infused per hour i.e. the hourly rate. The first step requires you to extract the relevant information from the prescription

chart and intravenous fluid container – insert this information in the equation model by clicking on each box in turn and typing in the values as in the example.

Click the '?' symbol alongside each numeric value to reveal and select the correct measurement unit for each value (see Figure 23).

When ready, click on **Next** to continue.

SETTING THE VOLUMETRIC PUMP

Carefully study the information above. Set the correct rate and volume on the volumetric pump.

When you have completed this step, click **NEXT** to continue.

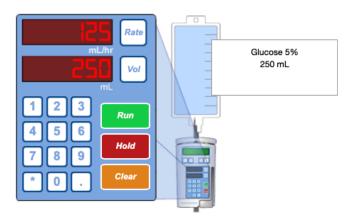


FIGURE 43 – REPRESENTING YOUR ANSWER AS ML/HOUR

In this next step you are required to represent the hourly rate and total infusion volume on a volumetric infusion pump. The above example shows how 250mL of fluid over 2 hours duration is represented.

To enter the hourly rate value on the pump, click on the **Rate** button then click on the appropriate number keys to represent your answer (125 in the above example).

To enter the total volume to be infused on the pump click on the **Vol** button then click on the appropriate number keys to represent your answer (250 in the above example).

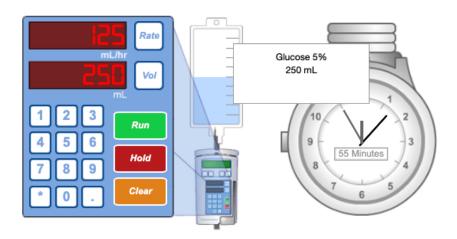


FIGURE 44 – DELIVERING YOUR ANSWER

When you are happy with your answer click on the **Run** button to proceed to the next stage of the problem.

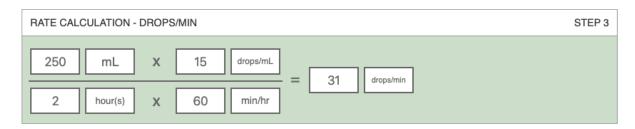


FIGURE 45 – CALCULATING THE DROPS/MIN USING THE TRADITIONAL (EXTENDED FORMULA) METHOD

In this second stage you are required to calculate the number of drops per minute required if you were to deliver this fluid via an IV administration set.

The traditional or extended formula method is based upon four factors – the total volume to be infused (250mL), the duration of the infusion (2 hours), the drop factor of the IV administration set (15 drops/mL) and the number of minutes in an hour (60 min/hour). The equation is set up as in the example above.

First, multiply the two numerators:  $250 \times 15 = 3750$ 

Second, multiply the 2 denominators:  $2 \times 60 = 120$ 

Next, divide the first answer (3750) by the second (120): 3750/120 = 31.25

This gives the drops per minute rate.

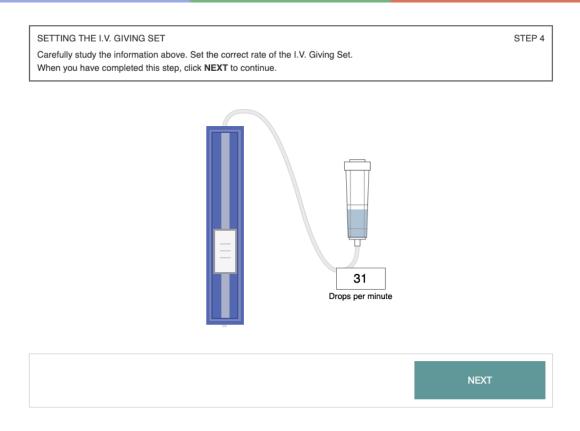


FIGURE 46 – REPRESENTING YOUR ANSWER AS DROPS PER MINUTE VIA AN IV ADMINISTRATION SET

In this last step you are required to represent your answer as drops per minute by adjusting the administration set accordingly.

Click on the wheel of the fluid control mechanism and drag up or down - your answer is represented in the drops/min box (31 in this example).

When you are happy with your answer click on **Next** to proceed to the next question.

You will not be told whether you are correct or otherwise until all questions have been answered.

# **Completing the Assessment**

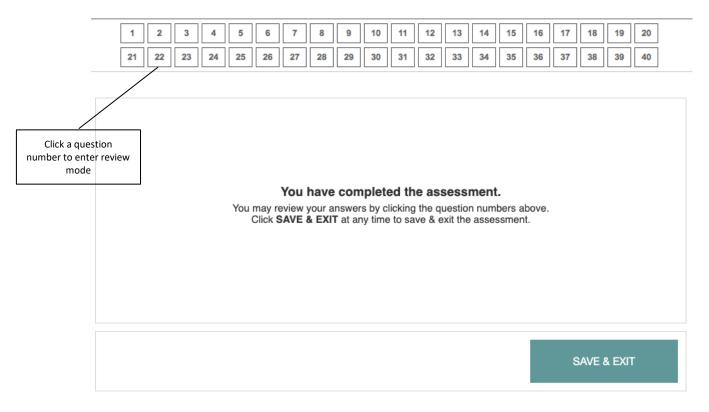


FIGURE 47 - COMPLETING THE ASSESSMENT AND BEING INVITED TO REVIEW ANY QUESTIONS

When all questions have been answered you will be told that the exercise is complete and offered the opportunity to review any questions before finishing the assessment – this provides an opportunity to check your answers or to retry any question you might have been unhappy with.

### **Using Review Mode**

Click on the small box that represents the question number to enter review mode.

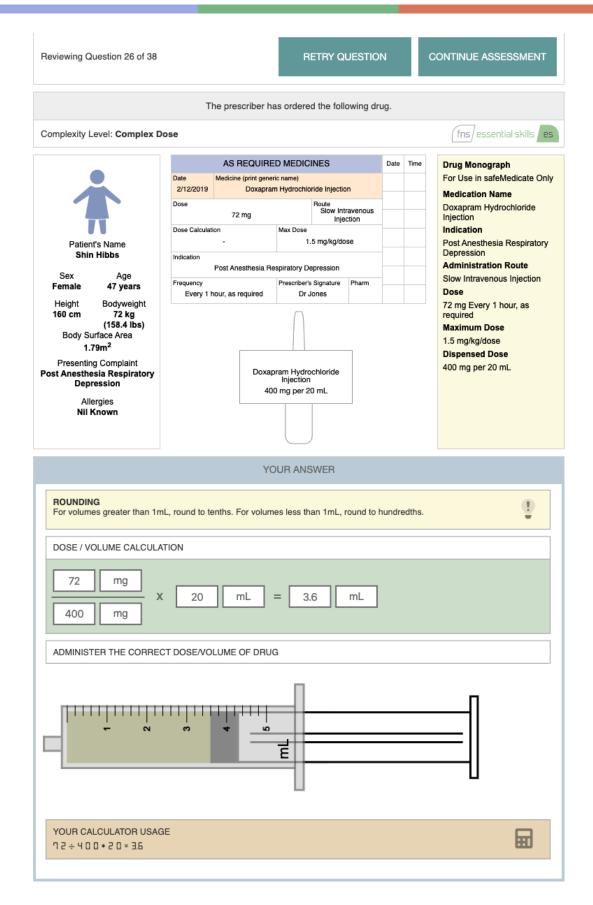


FIGURE 48 - REVIEWING AN ASSESSMENT QUESTION

In the above example we have chosen to review Question 26 - note that the question is represented and beneath is your solution to the problem.

If you wish to change this answer, then click on the 'Retry Question' button – you will need to redo the entire question.

If you are happy with your answer, then click on the 'Continue Assessment' button to move on.

### **Ending the Assessment**

Once you have finished reviewing any questions click 'Save and Exit' (see Fig. 40).

You will be returned to the main assessment page and you will not be able to retry any further questions in this assessment.

# **Authentic Assessment (AA) Problems**



FIGURE 49 - BEGINNING THE ASSESSMENT

Launch the **Assessments** module as described in the previous section of this guide. Any assessments scheduled for you will be listed as in the example above.

Enter the assessment password and click Start.

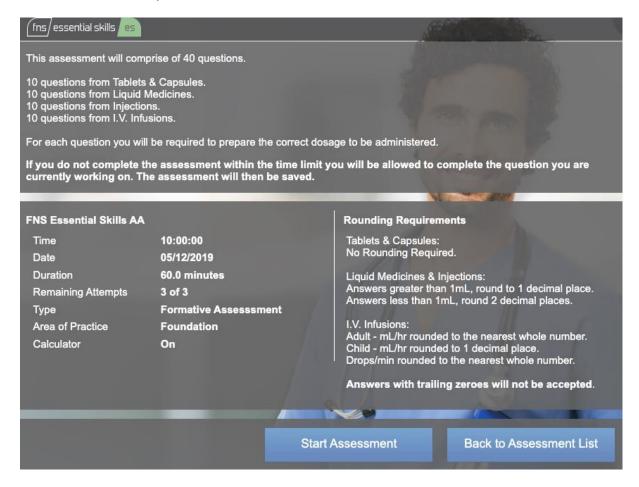


FIGURE 50 - DETAILS OF THE ASSESSMENT

The next screen provides an overview of the assessment format. Click **Start Assessment** when you are ready to begin.

A typical Authentic Assessment question requires you to extract the relevant information from the medication prescription and medication product label and calculate the answer. You are not required to show how to set up the problem in an equation. All that is required is a final answer. Your instructor will inform you whether you are able to use pencil and paper or a calculator to assist you.

# **Tablets and Capsules Questions**

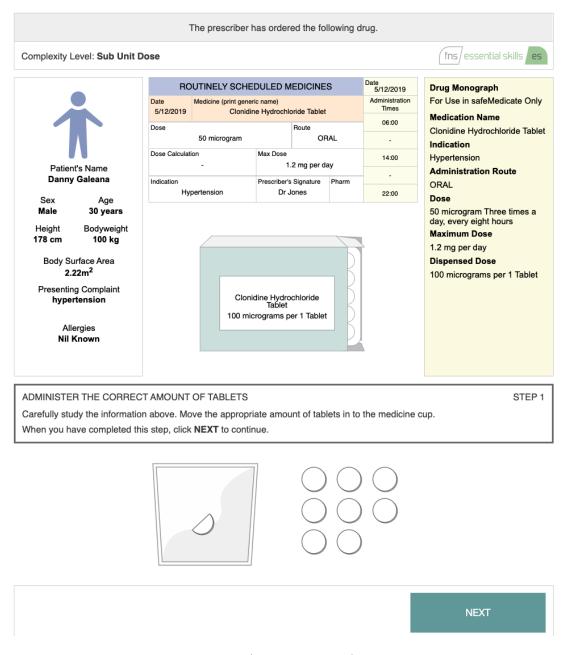


FIGURE 51 - ANSWERING AN AUTHENTIC ASSESSMENT PROBLEM (TABLETS AND CAPSULES)

Using the information available to you on the prescription chart and medication container label, calculate the dose to be administered.

Represent the amount of medication that should be administered by clicking on and dragging the correct number of tablets/capsules required into the medicine cup as shown in the example above.

When you are happy with your answer, click the **Next** button to proceed to the next question.

Note that for any AA assessment, each medication domain question will be presented in a similar format as shown in figure 44).

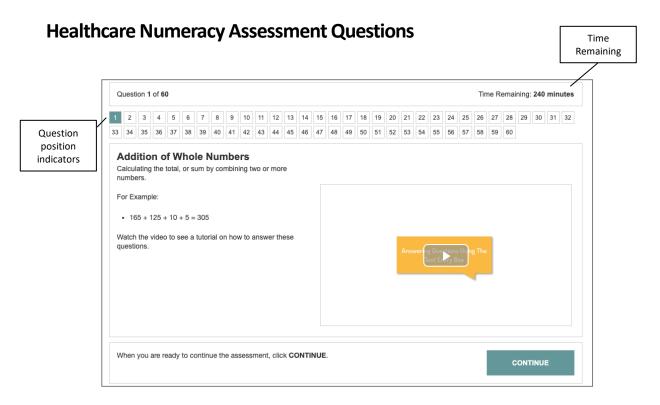


Figure 52 HNA – HOW TO ANSWER AN ADDITION QUESTION

In the above example you will see that the numbered boxes at the top of the screen identify your position within the question sequence – in this example Question 1 of 60. Your time remaining to complete the assessment is shown in the title bar of the screen which is highlighted in the image above.

In this first step you are prompted to watch the video tutorial on the right-hand side. Hover your mouse over the video and click to watch the example on how to answer the questions for this section.

When you are ready to start the section, click 'Continue' to begin.

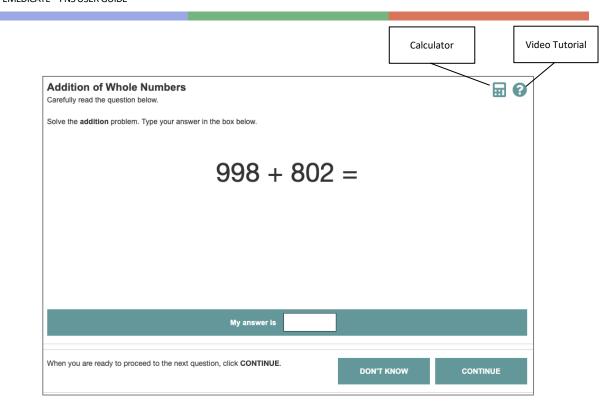


Figure 53 ANSWERING AN ADDITION QUESTION (HNA)

As shown in the figure above, you must work out the equation and insert your answer by clicking on the text box and typing in the numeric value.

If you need some guidance on how to answer this type of question, Click the '?' symbol on the top right-hand side to re-watch the video tutorial.

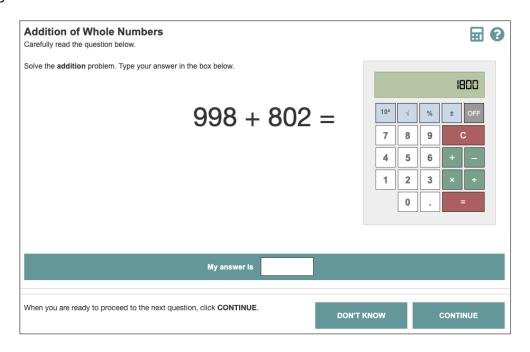


Figure 54 USING THE CALCULATOR

If your organisation has allowed calculator use for this assessment, you can use the calculator provided as shown in the figure above, to work out the equation. To use the calculator, click on the numeric values, in this example 998 + 802 and then follow with the equals (=) sign to arrive at the answer of 1800. Once you've finished using the calculator click the '**OFF** button to close the calculator.

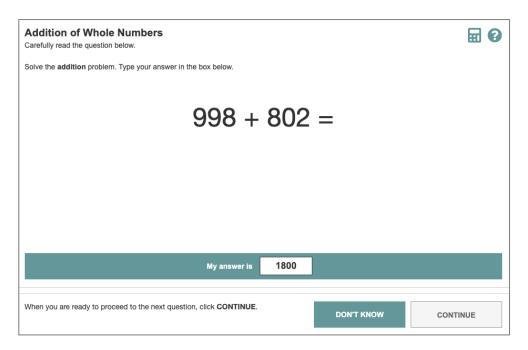


Figure 55 ANSWERING THE QUESTION

Insert your answer by clicking on the text box and typing in the numeric values as shown above.

When your happy with your answer click 'Continue' to move on to the next question.

Once you've completed the 3 questions in each domain, you will be presented with the image shown below. At this stage you will have the opportunity to review and retry the questions for this

section. Note, that you will only be able to review/retry this section at this stage. Once you've clicked 'Continue' you will move on to the next section and will not be able to revisit this section.

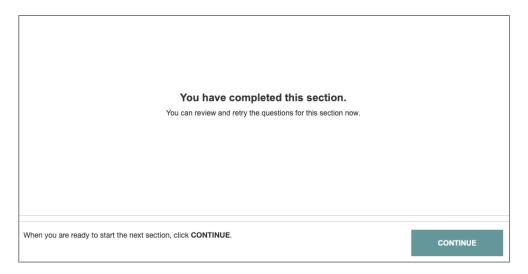


Figure 56 COMPLETING SECTION (HNA)

You will now be presented with the section. As shown in the figure below, you will have the opportunity to watch a video tutorial on how to answer these types of questions.



Figure 57 ANSWSERING A SUBTRACTION QUESTION

As shown below, you will be presented with the question. In this example 950-665. If you don't know the answer to this equation, then you have the option to click **'Don't Know'** and click **'Continue'** to confirm you want to move on to the next question.

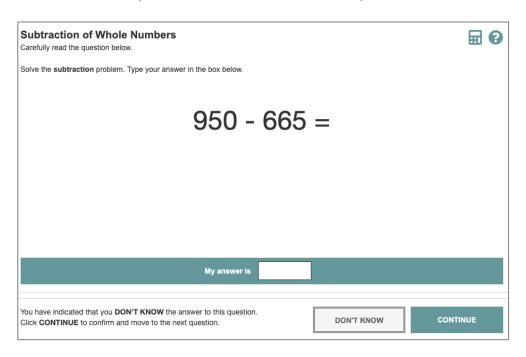


Figure 58 - INDICATING 'DON'T KNOW' IN AN EQUATION

You will then move on to the next question and as stated before, you have the opportunity to review and retry all questions in that section. Below, is an example of what you will see if you review a question that you choose 'Don't Know' as your answer. At this stage, if you wish to retry this answer then click on the 'Retry' button and will be able to redo the entire question.

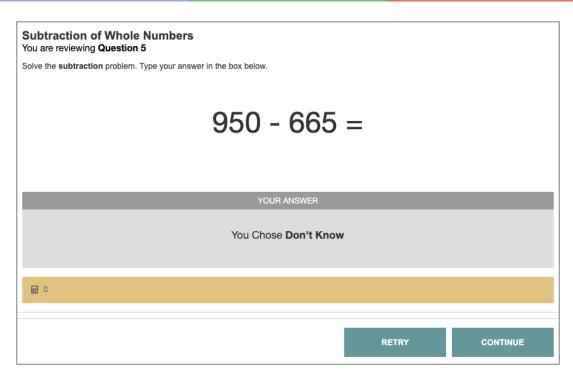


Figure 59 REVIEWING QUESTION

Once you are happy with your answer, click the 'Continue' button to move on.

## **Completing the Assessment**

Once you have completed all numeracy domains in each section, click 'Finish' to save the assessment.

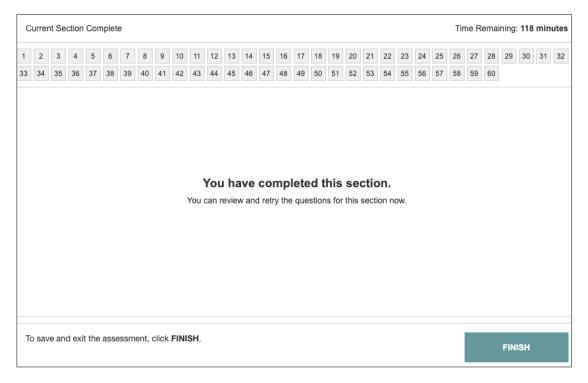


Figure 60 SAVING ASSESSMENT

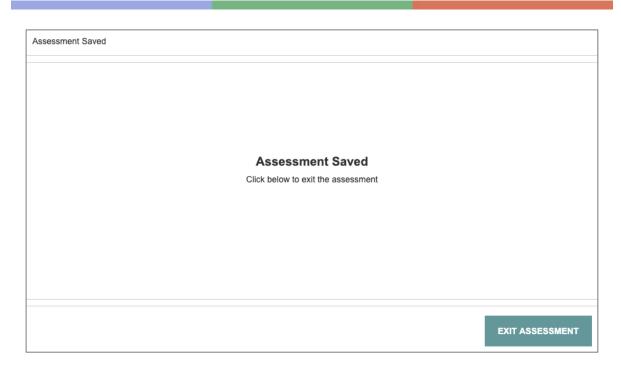


Figure 61 EXIT ASSESSMENT

Your assessment will then be saved. Click 'Exit Assessment' to return to the main assessment page.

Note: you will not be able to retry any further questions in this assessment.

# **Viewing Your Assessment Results and Feedback**

The Assessment panel lists assessments that have been scheduled for you by your institution as shown in the example below. Note that the list shows the date of the assessment and the module it is related to.

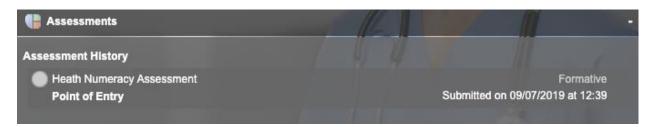


Figure 62 ASSESSMENT HISTORY LIST

Click directly over the chosen assessment in the list to open a summary of your results for that assessment.

## **Assessment Summary**



Figure 63 ASSESSMENT SUMMARY

An **Assessment Summary** screen is shown that provides an overview of how you scored on each 3 questions per skill domain (*addition of whole numbers, multiplication,* percentage etc.,). Alongside each question are color-coded blocks that show correctly answered questions, incorrectly answered questions and sections not undertaken. A key for these can be found above the summary.

As you can see from the summary above, for all questions that were answered correct are coloured in **green**, incorrect are coloured **grey** and any sections that were **not** undertaken are coloured in white.

In this example the student was assessed on Addition of Whole Numbers, Subtraction of Whole Numbers, Multiplication of Whole Numbers, Division of Whole Numbers, Negative Numbers, Fractions, Decimals and Percentage.

Hover your mouse directly over a row to highlight a particular question and click to view the detailed feedback. The figure below illustrates what the typical feedback format for an Addition of Whole Numbers question looks like. Note that feedback for other assessment domains (subtraction, multiplication, division etc.,) will follow a similar format.

# **Correctly Answered Question**

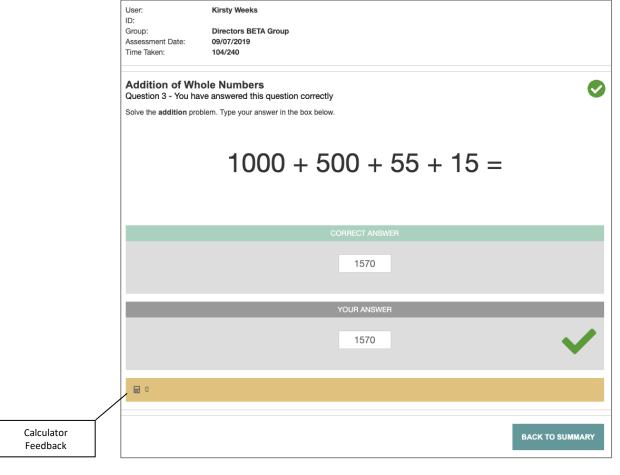


Figure 64 DETAILED FEEDBACK FOR CORRECT ANSWER

Note that there are 3 main components to the feedback for the question.

- 1. The top portion of the screen represents the question.
- 2. The centre portion of the screen shows the correct answer to the equation.
- 3. The lower portion of the screen shows your answer to the equation and affords a discrete comparison with that of the correct solution above. If you've used a calculator to solve the problem, the keystrokes will be recorded in the calculator feedback section of the screen.

## **Incorrect Answered Question**

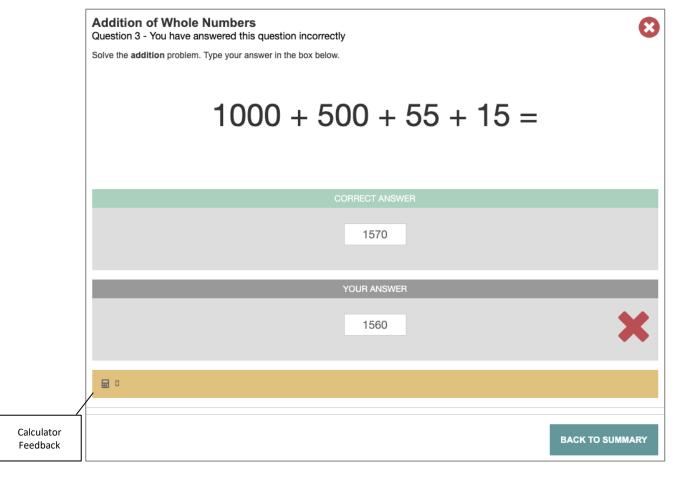


Figure 65 FEEDBACK FOR INCORRECT ANSWER

Note that the feedback is set out the same as the previous example.

In this example, the student has been marked incorrect due to a calculation error. Any incorrect answers will be marked with a red cross to indicate where the student has made an error.

Once you've finished reviewing the question click 'Back To Summary' to return to the Assessment Summary Page. Note, you have the option to print your Assessment Summary by clicking the icon highlighted below.



Figure 66 ASSESSMENT SUMMARY WITH PRINT OPTION

Once you've reviewed each question of your assessment, click 'Back to My Record' to return to your personal User Record.

# **Your Account Settings**

Hovering your mouse over the **Account Settings** menu item will open a sub menu comprising three options:

- 1. Your Details
- 2. Module Access
- 3. Terms and Conditions

### **Your Details**

The **Your Details** menu item will show your basic contact details and course related information as shown in the example below.

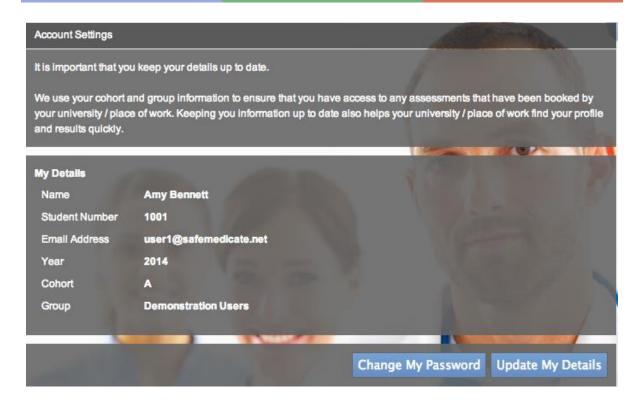


FIGURE 67 - ACCOUNT SETTINGS | YOUR DETAILS

## **Changing Your Password**

1. Click on the **Change My Password** button to open the dialog shown below.

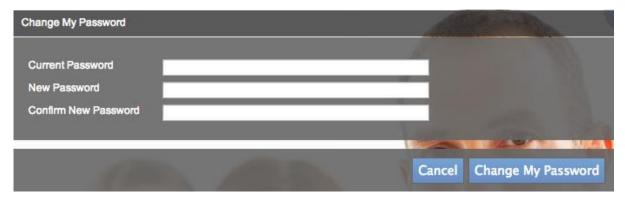


FIGURE 68 - THE CHANGE MY PASSWORD DIALOG

- 2. Enter your current password.
- 3. Enter your new password.
- 4. Enter your new password a second time to confirm.
- 5. Click on **Change My Password** to complete the action.

## **Editing Your User Details**

Click **Update My Details** (see Figure 55) to open the dialog shown below to make changes to your user record. Please keep this information up-to-date as it's important for your university/hospital in terms of ensuring they can find your profile and assessment results easily.

Make any necessary changes and click **Update Changes** to complete the action.

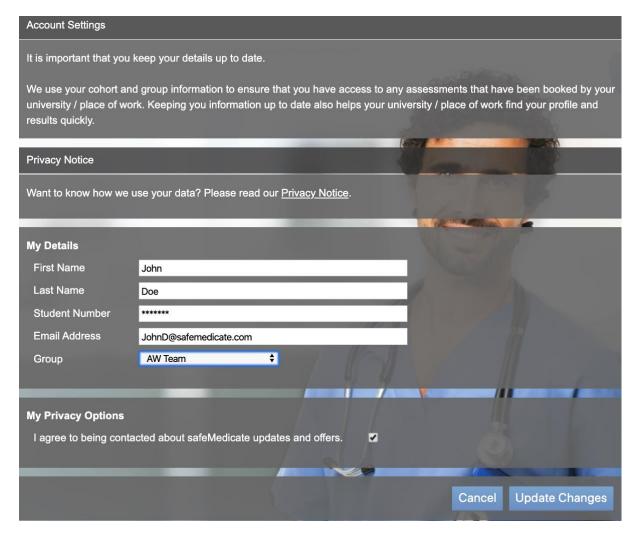


FIGURE 69 - THE EDIT USER DETAILS DIALOG

Note: Only change your group allocation if asked to do so by your instructor or administrator. If you are not associated with the correct group, you will not be able to sit any assessments that have been scheduled for you.

#### **Module Access**

The **Module Access** menu item lists your *safeMedicate* modules and their expiration dates as in the example below.

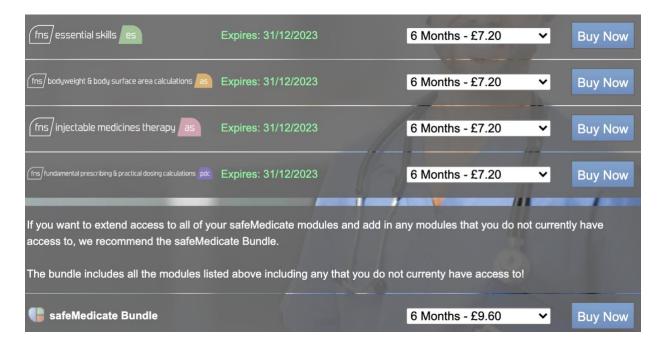


FIGURE 70 – ACCOUNT SETTINGS | MODULE ACCESS PAGE

If you need to extend access to your *safeMedicate* account, then you can make an in-app purchase of individual modules or the **safeMedicate Bundle** that comprises all modules.

- 1. Use the list box associated with the module(s) you wish to purchase to select a time period (e.g. 12 months) for the new license.
- 2. Click on Buy Now.
- You will be taken to the secure PayPal payment screen to complete your purchase.
   You can choose to pay using your PayPal account or with any major debit or credit card.

#### **Terms and Conditions**

The <u>Terms and Conditions</u> menu item will open a separate tab explaining our *End User Terms and Conditions* in PDF format.

# **Getting Help When You Need It**

If you are experiencing problems, we provide direct access to our Customer Support Services. Hovering your mouse over the **Support** menu item will open a sub menu comprising 5 options:

- 1. User Guide
- 2. Knowledge Base

- 3. Video Tutorials
- 4. Local Administrator
- 5. Submit Support Ticket

### **User Guide**

Use this menu item to open or download an online copy of this guide.

# **Knowledge Base**

Click on the **Knowledge Base** menu item to open the Knowledge Base in a separate window shown below.

#### **KNOWLEDGE BASE**

Search our Knowledge Base of frequently asked questions.

#### General account navigation

- · How to generate a CPD certificate
- · How to generate a PD certificate
- I've watched all of the videos but my progress indicator still doesn't show 100%
- I can log in to my account but it says my access has expired
- I have watched all the introduction videos but don't know how to navigate through the learning module
- I don't know how to access 'practice your skills'

See all 7 articles

#### Assessments

- It says I have an upcoming assessment on my home page but I can't see it in my 'Assessments' module
- I cannot view my assessment results and it is showing a padlock sysmbol.
- I have an assessment booked but I can't see it?
- How do I find my assessment results?
- · How do I print my assessment results?
- I have to undertake an Assessment, but I have not been given a password.

See all 9 articles

#### Registration and login

- I am having trouble logging in
- I have forgotten my password.
- My login details have not been recognised.
- I do not have a username but I would like to use safeMedicate
- I can log in but I am receiving an Account Expired message.
- I have been given my username but I do not have a registration key.

See all 12 articles

FIGURE 71 - KNOWLEDGE BASE HOME SCREEN

Here you will be able to search or view through our frequently asked questions and potential solutions to a particular problem.

### **Video Tutorials**

Click on the **Video Tutorials** menu item to open the Video Tutorials in a separate window shown below.

#### VIDEO TUTORIALS | SHOW ME ...

Learn how to get the most out of safeMedicate with our step-by-step tutorial videos. Use the video control options at the foot of the playback window to control the video quality to suit your monitor and download speeds.

### Student/personal user support - if you have access Administrator Support

- to FNS modules
- How to sit a proctored assessment
- Orientation to the home page (part 1)
- Working with the learning modules (part 2)
  Understanding your personal record (part 3)
- How to access your assessment results
- How to submit a support ticket
  - See all 14 articles

- Editing an assessment that has been scheduled using the FNS assessment scheduler
- Proctorio how to schedule a proctored assessment
- How to schedule an assessment for an Individual User (FNS Scheduler)
- How to schedule an assessment by Module (FNS Scheduler)
- How to schedule an assessment by User Group (FNS Scheduler)
- How to search for and review Healthcare Numeracy Assessment results

See all 28 articles

#### Essential Skills 2018

- NSW Nurses and Midwives' Association How to purchase and register your safeMedicate account
- How to test your device's compatibility
- How to register your safeMedicate account
- How to find features and functions within safeMedicate (Part 1)
- How to access the learning modules (Part 2)
- How to understand your 'Personal Record' (Part 3)

See all 18 articles

#### Essential Skills Basics (pre-2018)

- How To Practice Your Skills (Pre 2018)
- How to view module access
- How to test your device's compatibility with safeMedicate
- How to transfer your data
- How to locate and take practice assessments

FIGURE 72 VIDEO TUTORIALS HOMEPAGE

Here you will be able to view our step-by-step tutorial videos on using your safeMedicate account.

### **Local Administrator**

The Local Administrator is the person within your university/organization that you should contact for support in the first instance. Click on the **Local Administrator** menu item to show the figure below.

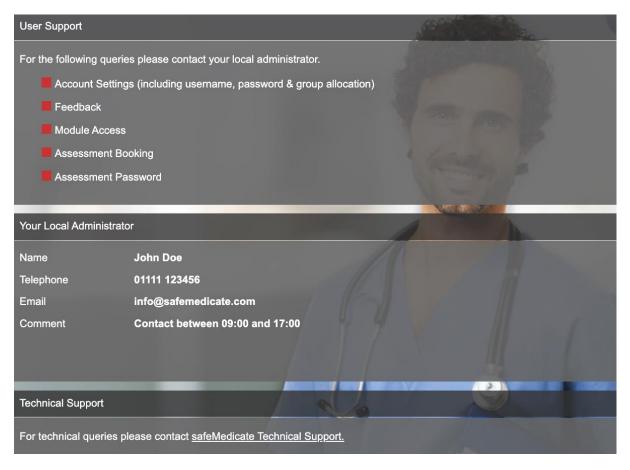


FIGURE 73 - THE USER SUPPORT PAGE

The top section of the screen shows a list of the typical things that you should contact your Local Administrator about.

The contact details for your Local Administrator should be visible in the central section of the screen.

The lower section of the screen provides direct access to the *safeMedicate Technical Support* services as described below.

# **Submit Support Ticket**

Click on the **Submit Support Ticket** menu item to open the dialog shown below at the bottom right of the screen.



FIGURE 74 – SUBMITTING A SUPPORT TICKET

Please try and describe your problem as best you can – this will assist our intelligent search function to scan our *Knowledge Base* to try and provide an immediate answer.

Type in your question to start searching FAQ's related to your problem from our *Knowledge Base*.

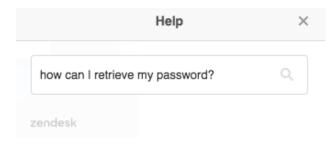


FIGURE 75 - SEARCHING THE KNOWLEDGE BASE FOR AN ANSWER

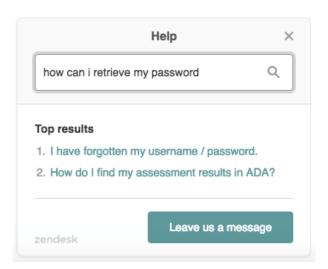


FIGURE 76 TOP RESULTS OF KNOWLEDGE BASE

The figure above shows the Top Results from our Knowledge Base that may provide an immediate answer to your query.

If a topic appears to address your problem, then click on the link to open the answer directly from our *Knowledge Base*. Answers may take the form of a set of instructions or even a video resource.

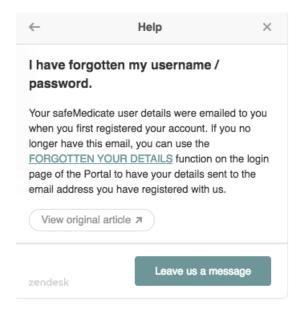


FIGURE 77 - KNOWLEDGE BASE ENTRY THAT ANSWERS PROBLEM POSED

If none of the listed answers appear to address your problem, then click the button at the bottom right of the dialog – **Leave us a message**. This will open another dialog shown below.

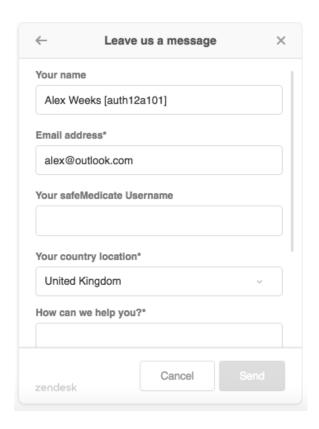


FIGURE 78 - PROVIDING ADDITIONAL DETAILS TO SUBMIT A SUPPORT TICKET

Note that as you are already logged in to safeMedicate, your name, username (in brackets following your name) and email address have already been entered for you.

Select your country location from the list box if it is not correct by default. This will ensure that the appropriate support team deals promptly with your support request.

Use the **How can we help you?** box to provide us with as much information as you can about your query. For example, what were you trying to do? / what actually happened? / did you receive an error message?

Use the **Attachments** section to optionally include any file such as a screenshot that will help us to resolve your query.

When you have entered the details click **Send** – you will receive a confirmation. Our Customer Support Team will be alerted to your Support Ticket and will be in touch with you shortly via email.

Please note that our Customer Support Team operates **between 09.00–17.00** on **Monday to Friday only**. This may result in a delay to your query being answered depending on the day/time it is submitted on.