



Healthcare Authentic Numeracy Development Suite

Administrator's Guide

Be competent, be safe

Develop and assess the Healthcare Numeracy skills nurses use in safe practice



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Mathematics Used by Nurses (The safeHANDS Roadmap)

safeHANDS is informed by over 30 years of research and incorporates 20 core areas of mathematics and healthcare numeracy that underpin and inform the safe practice of a wide range of nursing proficiencies and clinical procedures.

Begin by scheduling a Baseline Mathematics Assessment to determine the learners' initial numeracy skill. This assessment may include any or all of the 20 areas.



Addition of Whole Numbers



Subtraction of Whole Numbers



Multiplication of Whole Numbers



Division of Whole Numbers



Negative Numbers



Fractions



Decimals



Percentage



Ratio



Equivalences between Fractions,
Decimals, Percentages



Conversion between SI and Other
Measurement Units



Conceptual Problem Solving



Formula & Equations



Rounding of Numbers



Estimation



Indices and Logarithms



Calculator Use



Measurement

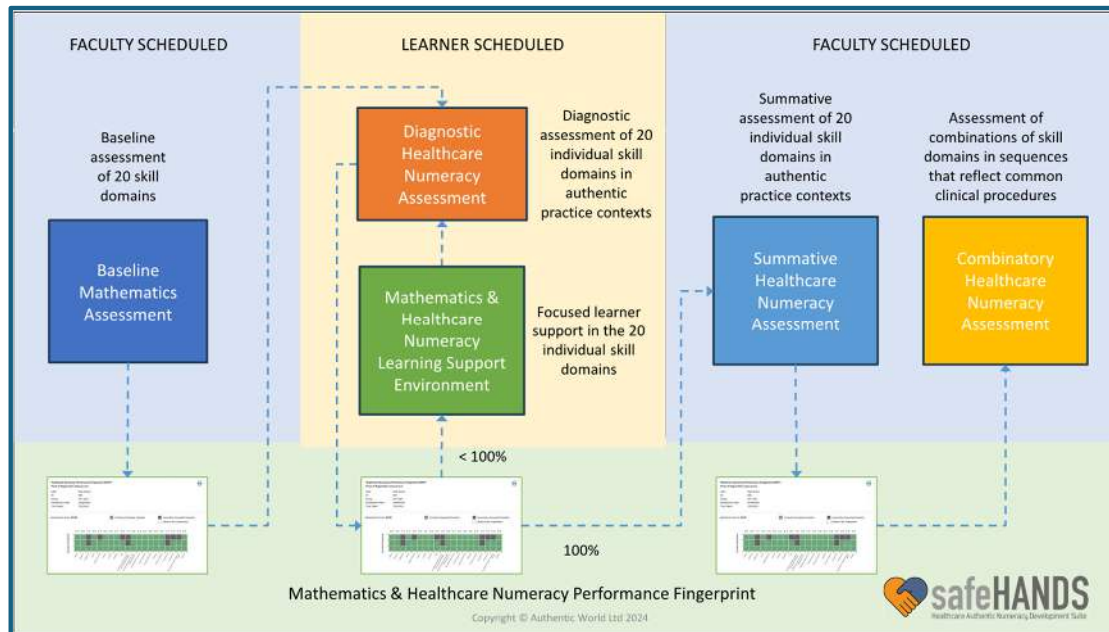


Interpretation of Tables, Charts and Graphs



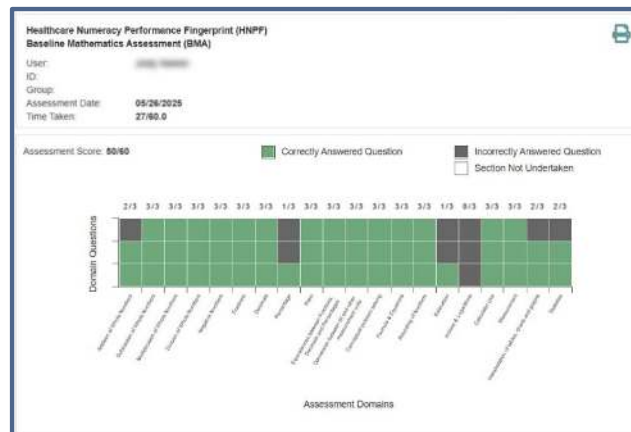
Statistics

The safeHANDS Roadmap



The Baseline Mathematics Assessment (BMA)

Students should take the Baseline Mathematics Assessment ONCE. They receive a fingerprint of their results. Clicking on any of the boxes shows them the question, their answer, and the expert (i.e., the correct) answer.



Learners then enter a period of self-paced learning, working through the learner-scheduled Diagnostic Healthcare Numeracy Assessment (dHNA) and utilizing the Mathematics and Healthcare Numeracy Learning Support Environment.

The Learning Support Environment has chapters for the 20 areas. Each chapter includes a taxonomy with a definition, the criteria for the mathematical area, and the relevance (with an example) to nursing science and the safe practice of clinical nursing procedures and processes as well as three video examples showing the steps used in solving problems in this area.

Student-Driven Learning and Assessment (the dHNA)

Scheduled by the learner, the dHNA may include any or all of the 20 areas and is designed to diagnose any of the learner's skill deficits. This assessment can be scheduled as many times as learners desire. The questions for the dHNA apply clinical examples.

Addition of Whole Numbers

Carefully read the question below.

Calculate the patient's 12 hour total oral intake recorded on the fluid balance chart. Type your answer in the box below.

DAILY INTAKE / OUTPUT CHART		
TIME	ORAL INTAKE / URINE / STOLE	VOLUME (ML)
12:00	Water	100 mL
13:00	Juice	80 mL
14:00	Coke	100 mL
15:00	Water	100 mL
16:00	Tea	240 mL
17:00	Spiced Tea	100 mL
18:00		
19:00	Orange Juice	210 mL
20:00		
21:00	Tea	240 mL
22:00	Coke	200 mL
23:00		
TOTAL		7 mL

ANSWER mL

Each assessment returns a fingerprint showing the correct answers in a green box and the incorrect answers in a brown box.



Clicking on any box shows you the results for that question.

Healthcare Numeracy Performance Fingerprint (HNPF)
Diagnostic Healthcare Numeracy Assessment (dHNA)

User: [Redacted]
ID: [Redacted]

Multiplication of Whole Numbers
Question 4 - You have answered this question incorrectly.

Solve the preceding multiplication problem. Type your answer in the box below.

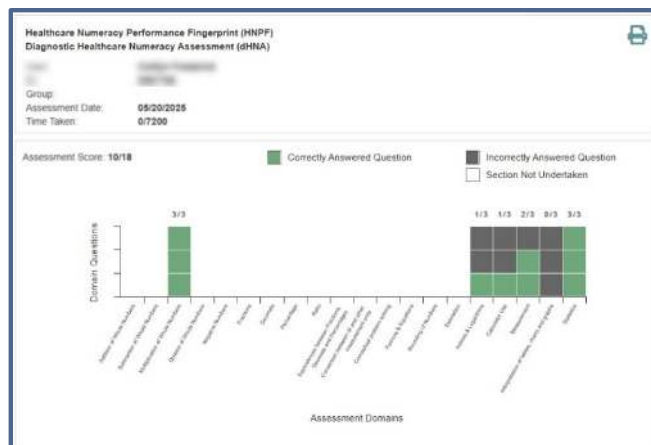
CORRECT ANSWER
ANSWER 25 capsules

YOUR ANSWER
ANSWER 5 capsules

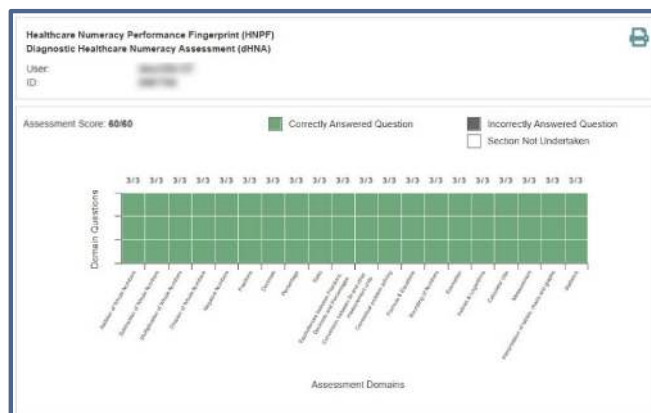
W T

[RETURN TO QUESTIONS](#) [BACK TO SUMMARY](#)

Each question has a button linked to the tutorial examples in the Learning Support Environment so learners can view the process required to obtain the correct answer. The areas with correct answers are banked and learners then remediate their weak areas and schedule an additional dHNA targeting those areas. This assessment's results also return a fingerprint.



Those areas with three correct answers are now banked and should the learner continue to provide incorrect answers, the process is repeated until 100% is achieved and the learner is able to provide a final dHNA showing a correct response for all the questions in all the assigned areas. (Not everyone assigns all the areas.)



The final Healthcare Numeracy Performance Fingerprint can be viewed on the learner's record along with the dHNA practice assessments.

Healthcare Numeracy Performance Fingerprint		
Click to View		
Practice Assessment History		
06/01/2025	dHNA	Score: 3 / 3
06/01/2025	dHNA	Score: 5 / 6
06/01/2025	dHNA	Score: 2 / 3
06/01/2025	dHNA	Score: 3 / 3
06/01/2025	dHNA	Score: 10 / 12
05/20/2025	dHNA	Score: 10 / 18
05/19/2025	dHNA	Score: 50 / 60

All the assessments and the final fingerprint can be printed or PDF'd to upload or email.

Faculty-Scheduled Assessment (the sHNA)

Once students have completed all the assigned areas successfully (achieving 100% on their DHNA fingerprint), schedule the summative Healthcare Numeracy Assessment (sHNA) to evaluate their skill levels in those areas. The questions for the sHNA apply clinical examples.

Percentage
Carefully read the question below.

Calculate the percentage of beds occupied by patients in the hospital ward. Type your answer in the box below.

The visual shows 10 beds in two rows of five. The top row has 4 beds occupied (blue icons), and the bottom row has 3 beds occupied (blue icons).

ANSWER %

Each assessment returns a fingerprint showing the correct answers in a green box and the incorrect answers in a brown box.



If you've allowed **Question Banking** when scheduling the dHNA, learners can retake the assessment needing only to complete the skill domains where they've incorrectly answered a question.

Additional dHNA may be scheduled to require the learner to achieve 100% on all the assigned areas.

Currently, Combinatory Assessments are in development to test combinations of the skills used in completing common clinical procedures.

Logging In to and Navigating safeMedicate

safeHANDS is accessed through your safeMedicate Administrator's license. To log in to safeMedicate, go to www.safemedicate.net and click the **Login** link on the menu bar or in the image. For more information on working in safeMedicate, view the [Admin Orientation video](#) or consult the Administrator's Guide.

The screenshot shows the 'Login' page of safeMedicate. It includes a 'Username / Email Address' field with the text 'faculty@myschool.edu', a 'Password' field with masked characters, a 'Forgot your password?' link, a 'Region' dropdown menu with 'USA, Canada & Switzerland' selected, and a 'Test your system now' link. A 'Login' button is at the bottom, along with a 'Register a new account' link. Three callout boxes provide instructions: one points to the email and password fields with the text 'Enter the Email Address and Password you recorded when you registered your license'; another points to the region dropdown with the text 'Verify the USA/Canada region – if this isn't selected, go to www.safemedicate.NET'; and a third points to the 'Login' button.

To view the safeHANDS learning environment select the **safeHANDS** option from the **Modules** menu from the safeMedicate Home page.

The screenshot shows the safeMedicate Home page. The 'MODULES' menu is highlighted in the top navigation bar. A callout box points to this menu with the text 'Open the Modules menu on the Home page'. The 'safeHANDS' module is highlighted in the 'Modules' list. A callout box points to this link with the text 'Open safeHANDS by clicking the Start Module link'. The page also displays an 'Assessment Calendar' for June 2025 and a 'Research & Development' section.

The learning environment opens, giving you access to the tutorials for the 20 skill domains as well as the ability to schedule diagnostic Healthcare Numeracy Assessments (dHNAs) and the fingerprint results from those assessments.

Scheduling a safeHANDS Assessment

Administrators schedule the Baseline and Summative (sHNA) assessments in safeHANDS. Diagnostic (dHNA) assessments are scheduled by learners as they self-direct themselves while completing the dHNA fingerprint.

safeHANDS assessments are scheduled in the same way as other safeMedicate assessments. For more information on working in safeMedicate, view the [Admin Orientation video](#) or consult the Administrator's Guide.

To schedule a safeHANDS assessment:

1. Select **Book FNS Assessment** from the **Assessment Manager**.
2. Choose the **Target User Group** to schedule for a **Group**, **Individual**, or **Course**.
3. Define the Group, Individual, or Course chosen to sit the assessment.
4. From the **Assessment Modules** menu, select **safeHANDS**.
5. Complete the **Assessment Details**, assigning a **Title** and **Password**, scheduling a **Date** and **Time**, and setting the limits on the assessment's **Availability**, **Duration**, **Attempts**, **Feedback**, and **Calculator**.
6. Choose either the **Baseline Mathematics Assessment (BMA)** or the **Summative Healthcare Numeracy Assessment (sHNA)** as an **Assessment Level**.
7. Select the **Skill Domains** you wish to assess.
8. Determine if you want **Question Banking** to be activated to include results from previously scheduled assessments. For example, if users have previously scored 100% in a skill domain, they are not presented with that skill domain again on a subsequent assessment.
9. Click **Schedule Assessment**.

The assessment now appears on the Home page calendar and is listed under the calendar when the date of the assessment is selected.

To edit the assessment, select **Search/Edit Assessment** from the **Assessment Manager**, search for and select the assessment, and make the changes you want before clicking **Update Assessment**.

To view assessment results, select the **Assessment Feedback** option under **Assessment Reports** in the **Report Center**. You then define the group who took the assessment and select the **safeHANDS** module to see all the available assessments. Choose those whose results you want and click **Run Report**.