



The development of an online learning resource to advocate for and support our diverse nurses through their CC3N competencies

Gayle Brunskill PDN for Critical care Cambridge University hospitals trust

Our units

Tertiary centre with specialism in transplant, haematology/ oncology, trauma and neurosurgery

3 critical care areas including, general ICU, neuro critical care unit and high dependency unit

59 beds

378 registered nurses

53 nurses undergoing step ones

20 nurses on critical care course

Challenge of competency completion in a busy critical care unit

Multiple studies detail the overwhelming impact of starting in critical care on our new starters (Stewart 2021, Wang et al 20024)

Neurodiverse learners may need greater time for processing information and traditional study days may not allow time for this (RCN 2025)

The ICU environment is noisy and stimulating, this may make bedside teaching challenging, this may be amplified for some neurodiverse learners (RCN 2025)

Choi (2020) highlighted the additional academic challenges for student nurses who had English as an additional language

Yet we expect all our learners to complete their step 1 competencies in a year our traditional methods of study days combined with bedside teaching may leave some of our more diverse learners behind

Initial survey results



Initial survey nurses completing step ones in last three years



42% found completing competency's difficult or very difficult



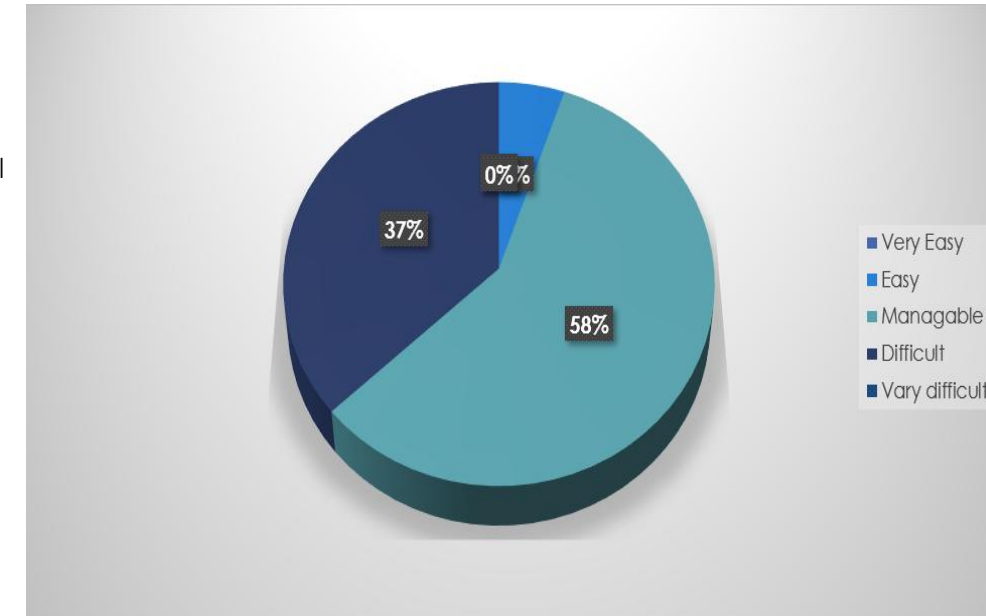
Lack of time and workload cited as main reasons for difficulty



12% stated they had an additional learning need with a further 10% not willing to disclose on the midpoint survey this number was higher at 21%



58% had English as an additional language



The potential benefit of an online learning platform

Online educational resources have been shown to allow for flexible self-paced study (McDonald, Boulton and Davis 2018) which may support our learners to develop their knowledge at their own pace

Studies have shown this can lead to greater learner satisfaction (Kim and Kim 2023)

And when combined with face-to-face teaching it has been shown to increase academic achievement (Holm and Beckman 2022)

Our vision

To create a digital platform of resources to facilitate self taught learning and support completion of CC3N competencies

To create a platform that allows learners from diverse backgrounds to study and learn at their own pace

To create a platform with multimodal resources to support different ways of learning and all learning styles

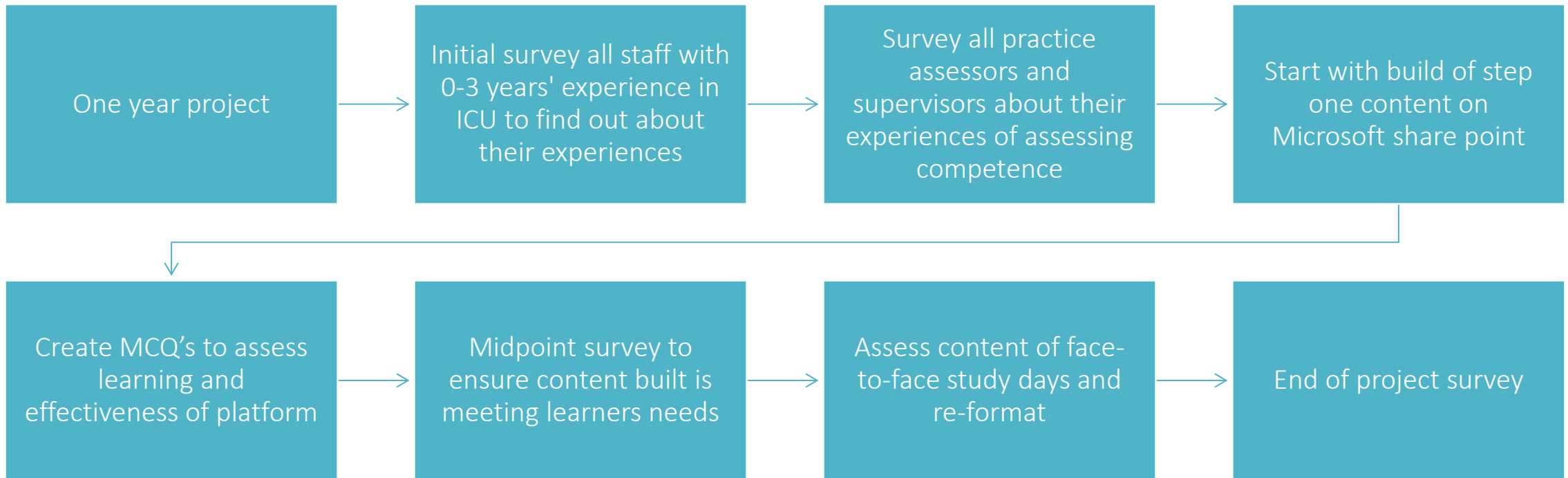
To create a platform that is easily accessible to all using accessible colors and fonts

To trial a flipped classroom approach to theoretical learning freeing up classroom time for application to clinical practice and simulation

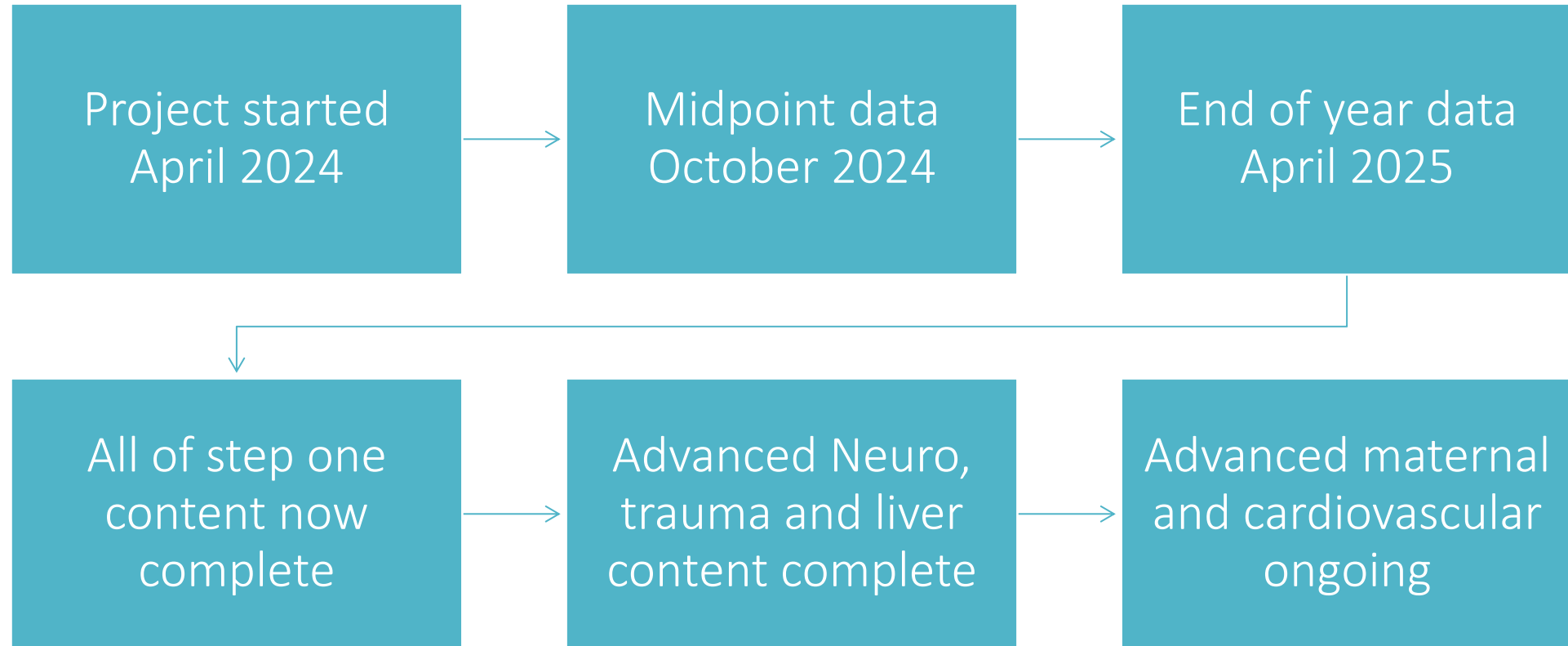
To provide a more robust assessment process for competency sign off including MCQ's and simulation



Plan



The journey so far



Content

Start with step one content built in order they appear in document associated with numbers

Controlled access to current staff only

Other teams to build none educational parts of the platform

Disclaimer regarding links to external content

External content and trust content clearly marked

All content to have multiple resources to support all learners

Use of accessible fonts and backgrounds



Digital step one user guide.



Welcome to CC3N hub user guide -
Start Here!



1:1 Promoting a Positive Patient
Experience



1:2 Respiratory System



1:3 Cardiovascular System



1:4 Renal System



1:5 Gastrointestinal System



1:6 Neurological System

The hub

1:6.1 Neurological Anatomy and Physiology and 1:6.2 Assessment, Monitoring and Observation

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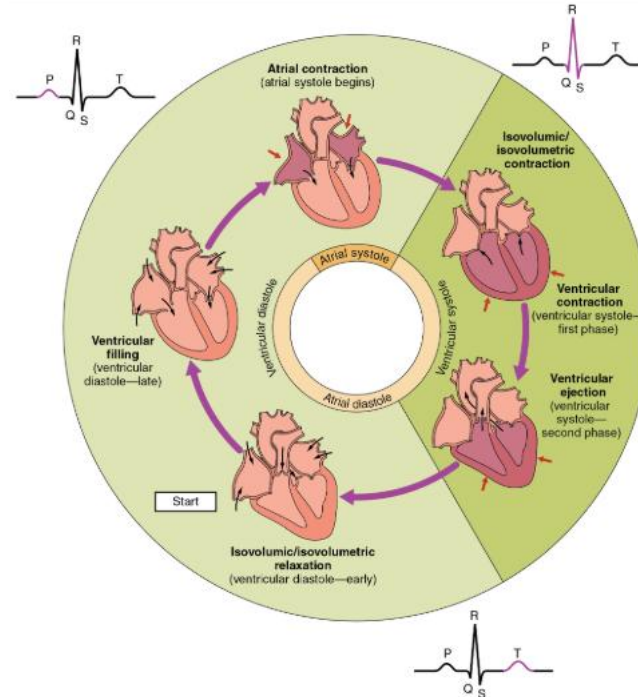
- ✓ Anatomy of the brain
- ✓ Brain blood flow
- ✓ The nervous system
- ✓ Cerebrospinal Fluid (CSF) Pathway
- ✓ Monro-Kellie Hypothesis and Intracranial Pressure (ICP)
- ✓ Endocrine Functions of the Brain

Content

^ The cardiac cycle

The **cardiac cycle** is the performance of the heart from the beginning of one heartbeat to the beginning of the next. It consists of two periods: one during which the heart muscle relaxes and refills with blood, called diastole, following a period of contraction and pumping of blood, called systole. After emptying, the heart relaxes and expands to receive another influx of blood returning from the lungs and other systems of the body, before again contracting to pump blood to the lungs and those systems.

The heart is a four-chambered organ. The upper two chambers, the left and right atria, are entry points into the heart for blood-flow returning from the circulatory system, while the two lower chambers, the left and right ventricles, perform the contractions that eject the blood from the heart to flow through the circulatory system. Circulation is split into pulmonary circulation, during which the right ventricle pumps deoxygenated blood to the lungs through the pulmonary trunk and arteries; or the systemic circulation, in which the left ventricle pumps/ejects newly oxygenated blood throughout the body via the aorta and all other arteries.



National Guidelines and Local Policy

NHS
CUH

Recognising and managing sepsis in adult patients



The UK Sepsis Trust Home Page | What is Sepsis? | Sepsis Symptoms

Usage data (at time of writing)

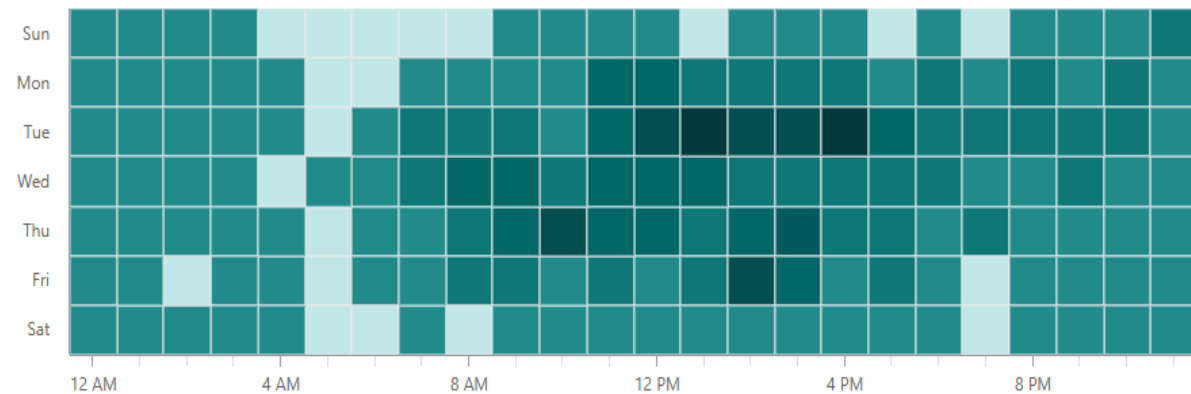
596 individual users including nurses, doctors and AHP's

75,278 individual accesses

Average time spent on hub 20 mins



💡 Tuesday at 4 PM is when most people have accessed your SharePoint site in the past 12 weeks.





One year feedback

One year

Low response rate

60 respondents

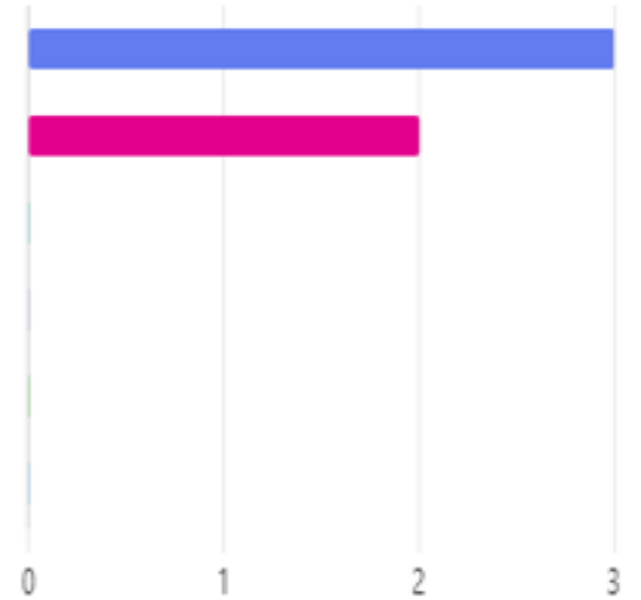
20% response rate

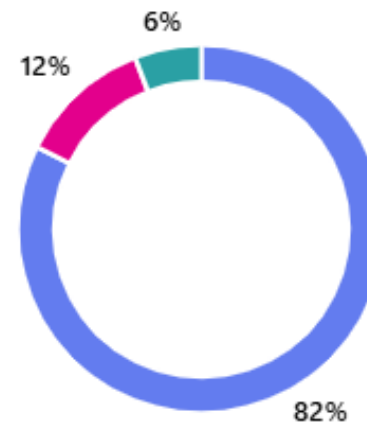
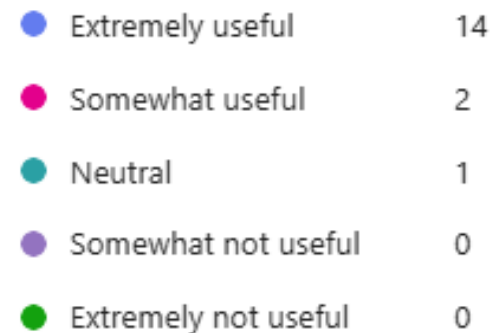
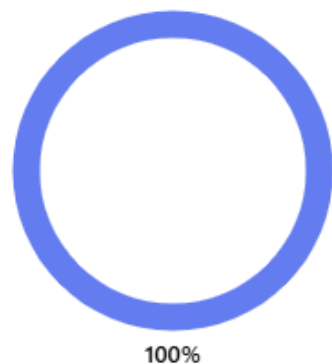
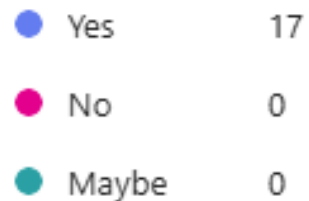
5 respondents with additional needs

17 completed step 1's since hub was active

Does the hub
accommodate
your additional
learning needs?

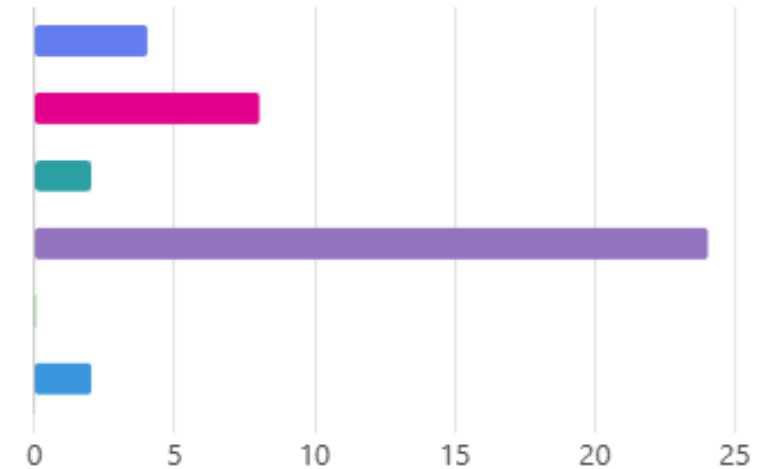
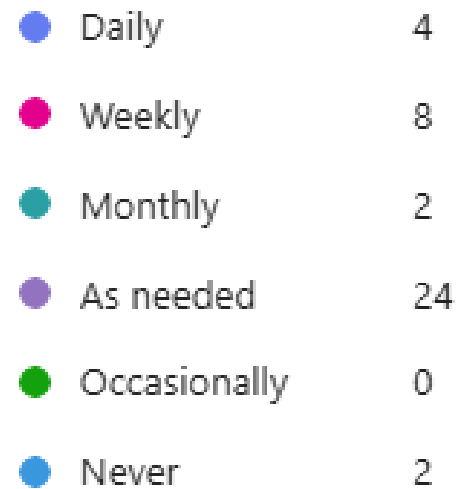
Yes greatly	3
Yes	2
Yes somewhat	0
Maybe	0
Somewhat	0
No	0





Do you think the hub has supported you through your step ones? And how useful has this been?

How often do you use the hub?



What could be
added to hub
to improve
support and
your learning

Only 9 responses

3 said nothing

2 said it was perfect

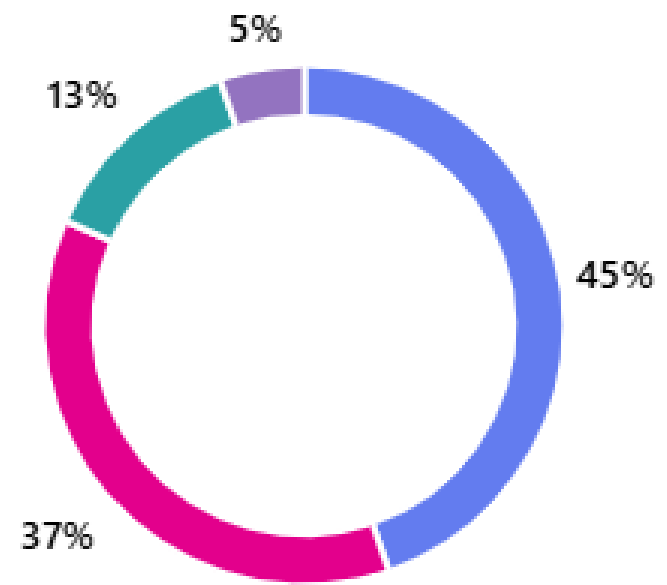
*"More study
resources"*

*"Enormous amount
of information
important bits could
be highlighted"*

*"A new MCQ a
week!"*

*"A learning topic a
month"*

Extremely easy	17
Somewhat easy	14
Neutral	5
Somewhat difficult	2
Extremely difficult	0



How easy is hub to navigate

What could make it easier to navigate?

*“Nil” 6
responses*

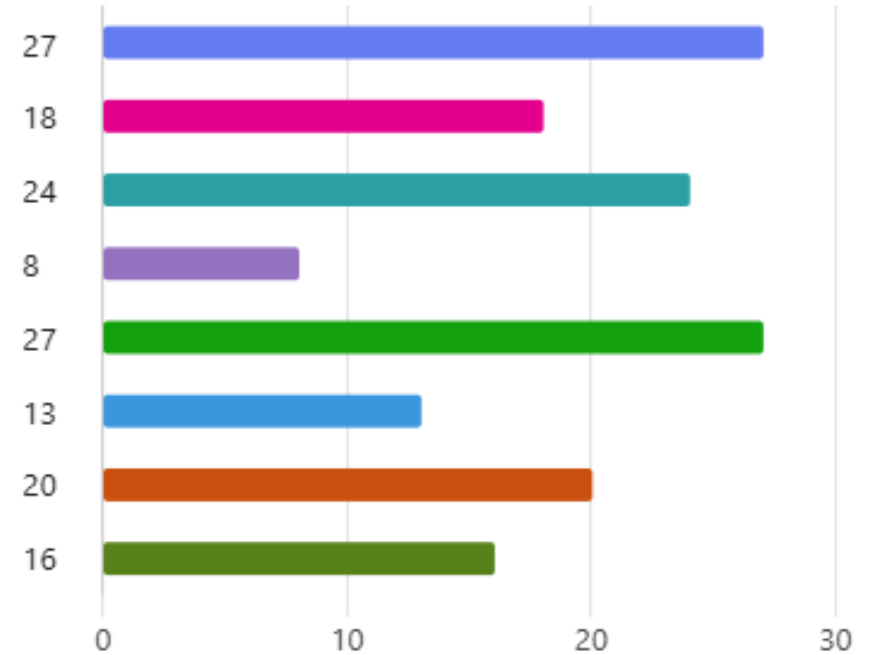
*“A link on
connect”*

*“Signposting
to essential
information”*

“Training”

What content do you find most useful for learning?

- Videos
- Narrated power points
- Links to national and local policys
- Podcasts
- Written content
- Workbooks
- Images
- Quizzes





"Very effective for people who find quiet reading time easier for their learning"



"videos I'm a visual learner"



"That it's easy to navigate and can easily find all the policies related to ICU. Much easier than trying to use Merlin"



"The videos and presentation , arranged the content as per step once"



"One stop shop for information"



"Easy to access, all in one place"

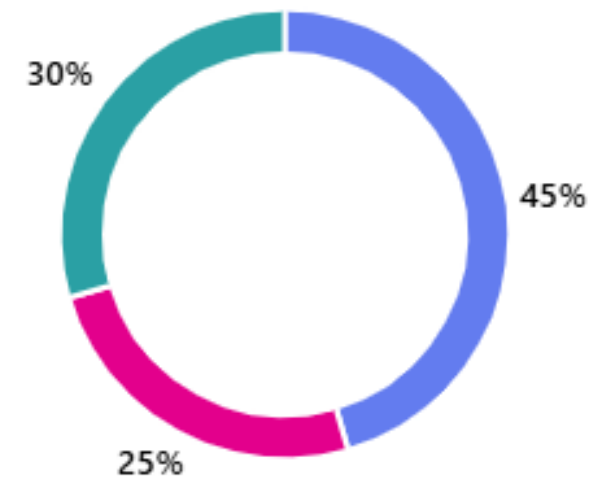
What did you like most

MCQ data

1350 MCQ's completed

Average mark 84.3%

● Increasing your learning	20
● Getting step ones signed off	11
● Finding gaps in my learning	13



Future plans

Advanced
haemodynamics
completed and
published

Make changes based on
feedback

Advanced maternal
build started

Plans for,
haematology/oncology,
advanced respiratory,
step 4's

Themed month section
built by PD

Link nurses updating
their areas, research
already built, infection
control in progress and
organ donation to start

Choose your own
adventures for all major
topics

References

Holm, P and Beckman, P. (2022) “Flipped of traditional online teaching? Two different strategies to handle teaching in nursing education during the COVID-19 pandemic” *International Journal of Nursing Education Scholarship* vol. (1).

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