NATIONAL CLINICAL GUIDELINE FOR STROKE

for the United Kingdom and Ireland

What's new and what does this mean for dietetics?

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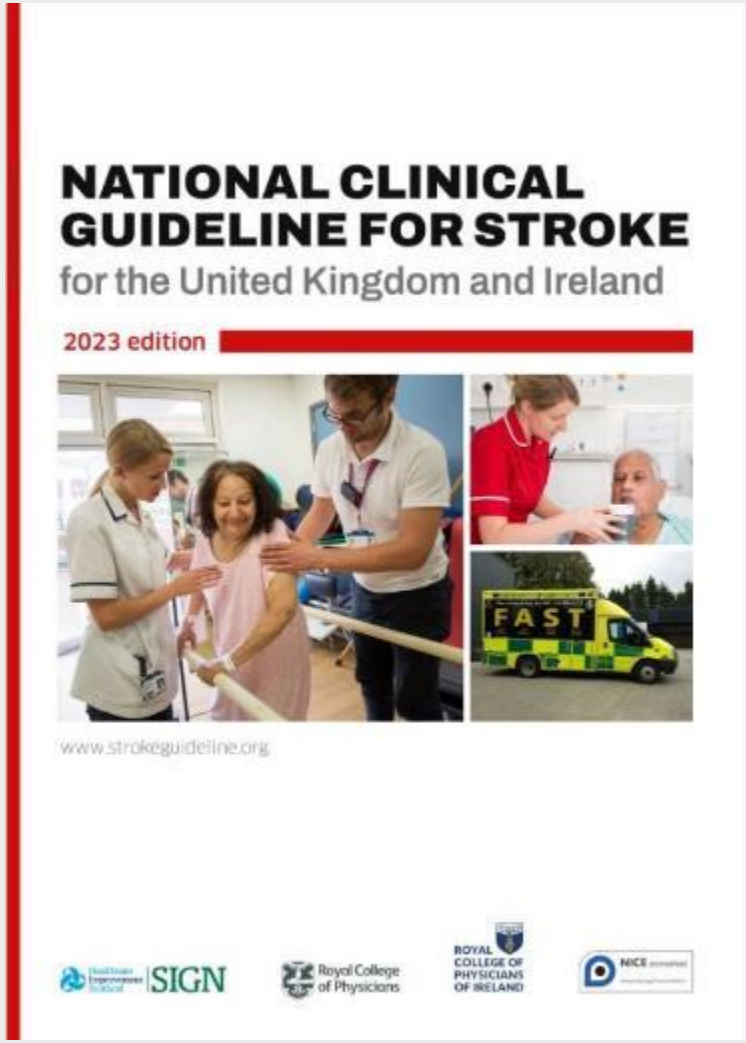
Aims for today

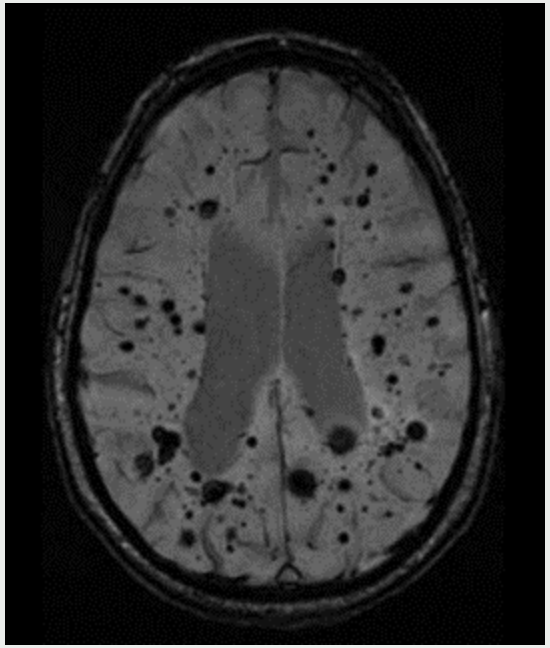
- To share main relevant updates from the new guideline
- To consider the implications for dietetic practice and nutritional care, including how updates can be implemented



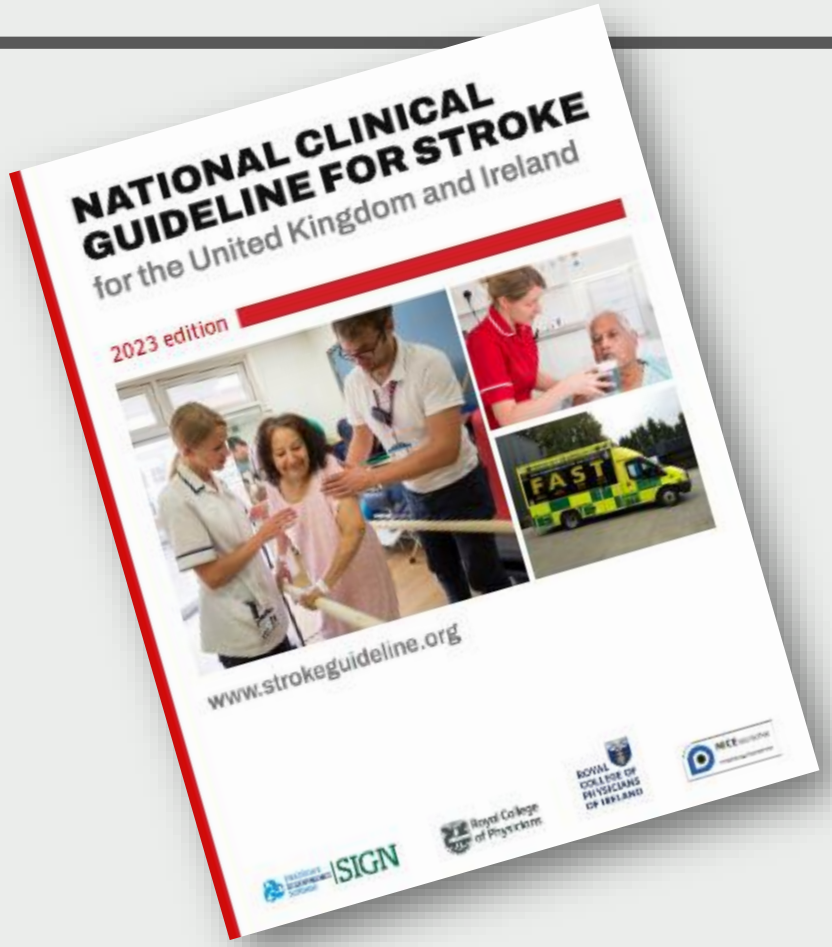
What are you most looking forward to hearing about?

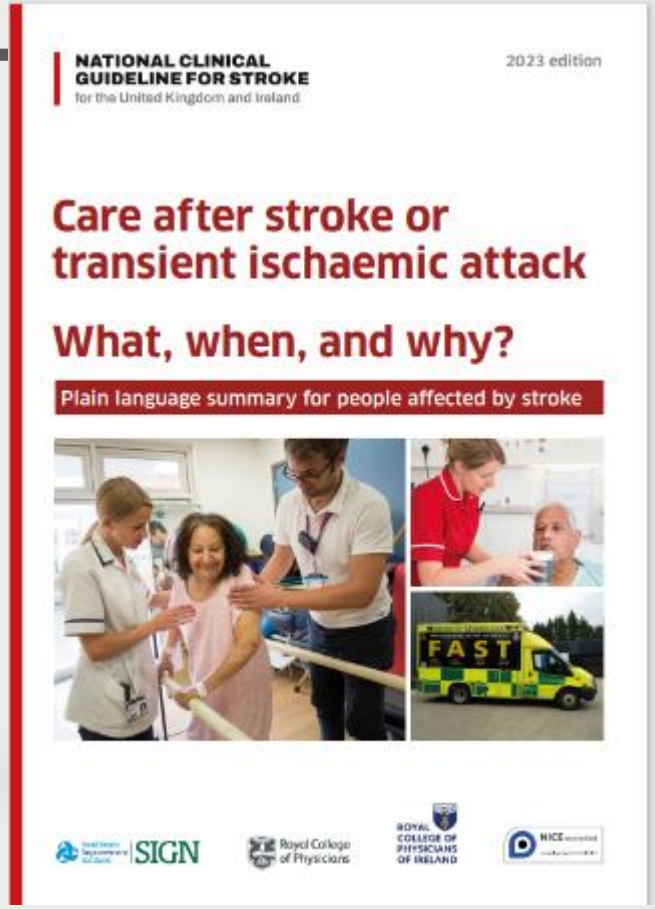
Main dietetic related updates

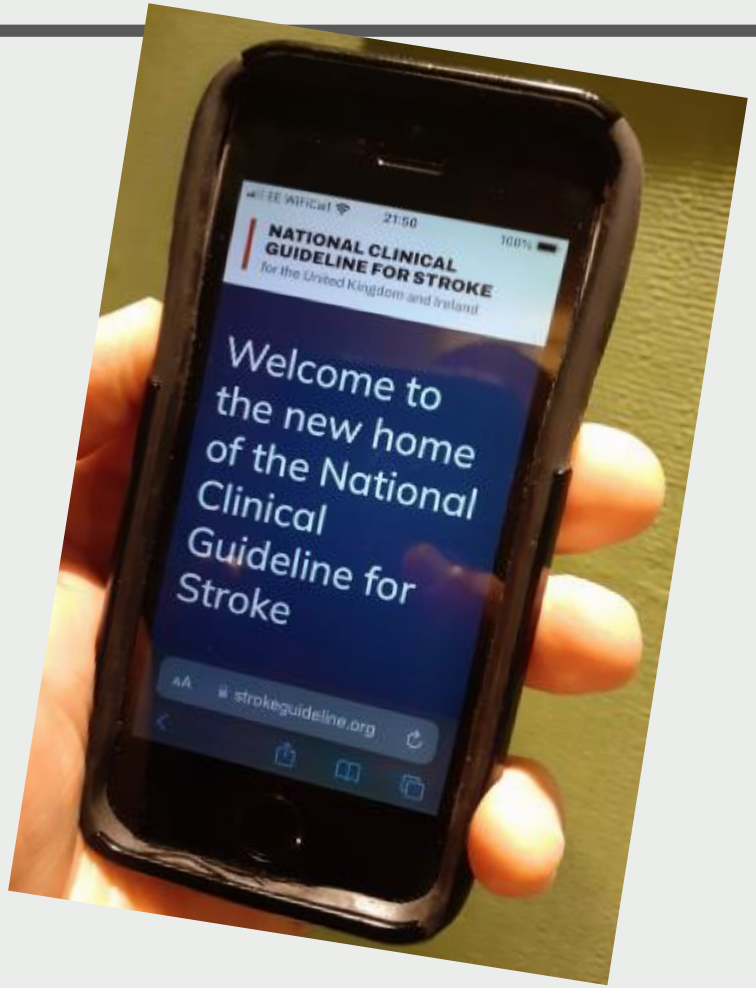
1. Staffing levels updated
2. Consideration of and decision making around EDAR
3. Detail and clarification around a range of elements of care
4. Importance of training and communication
   - eg mouth care, gastrostomy care



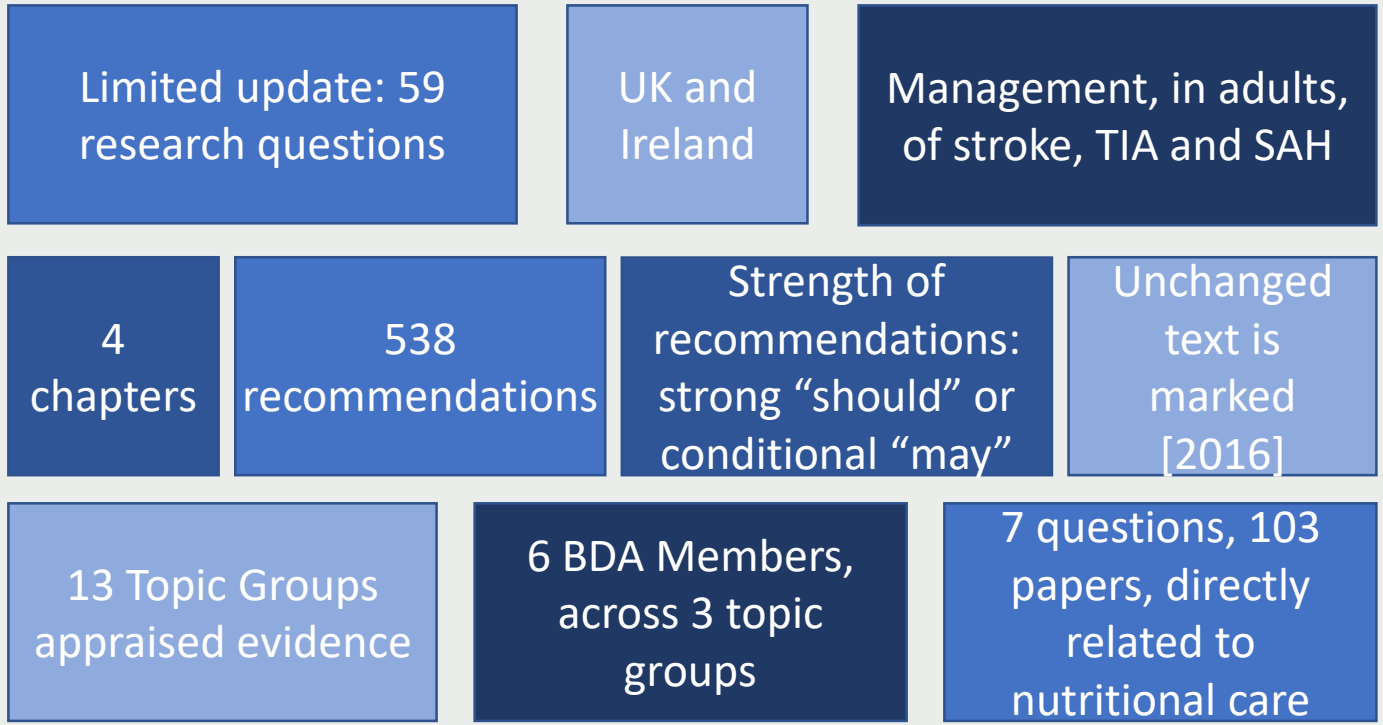
National Clinical Guideline



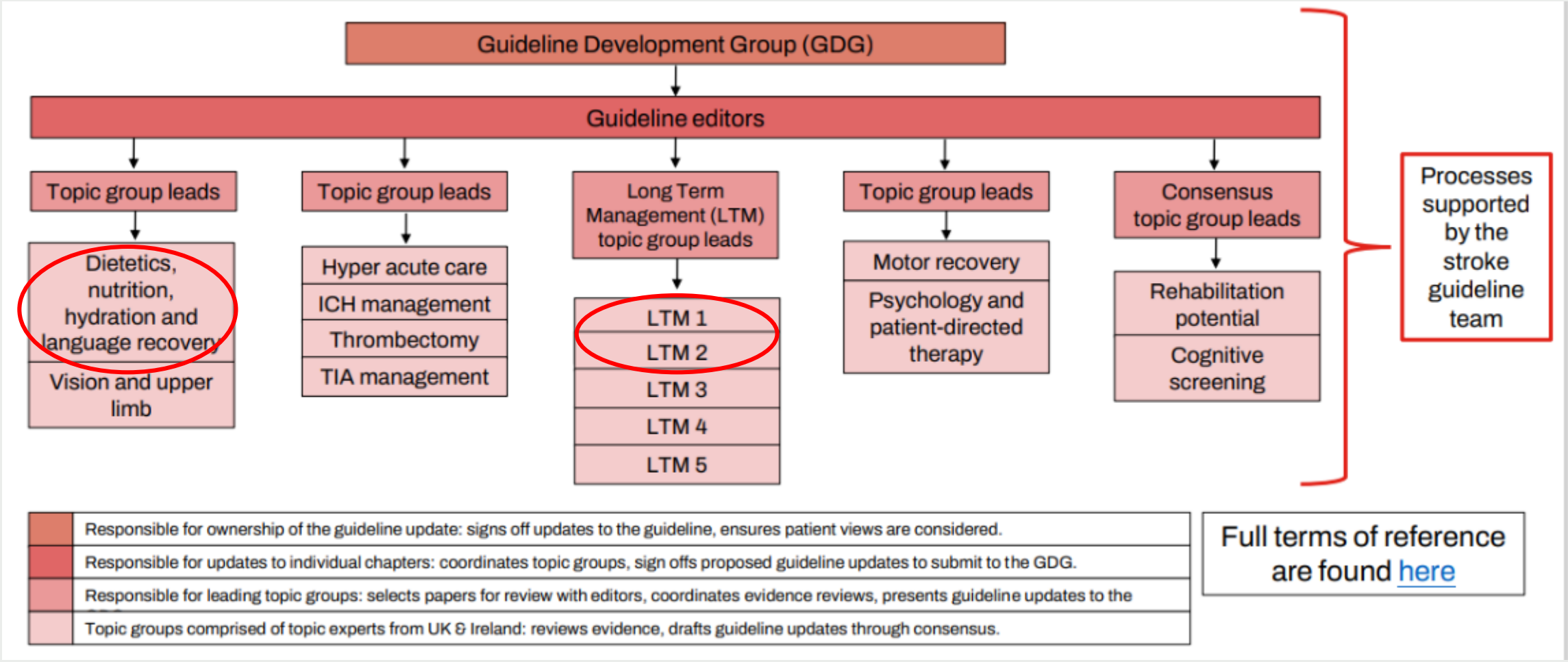




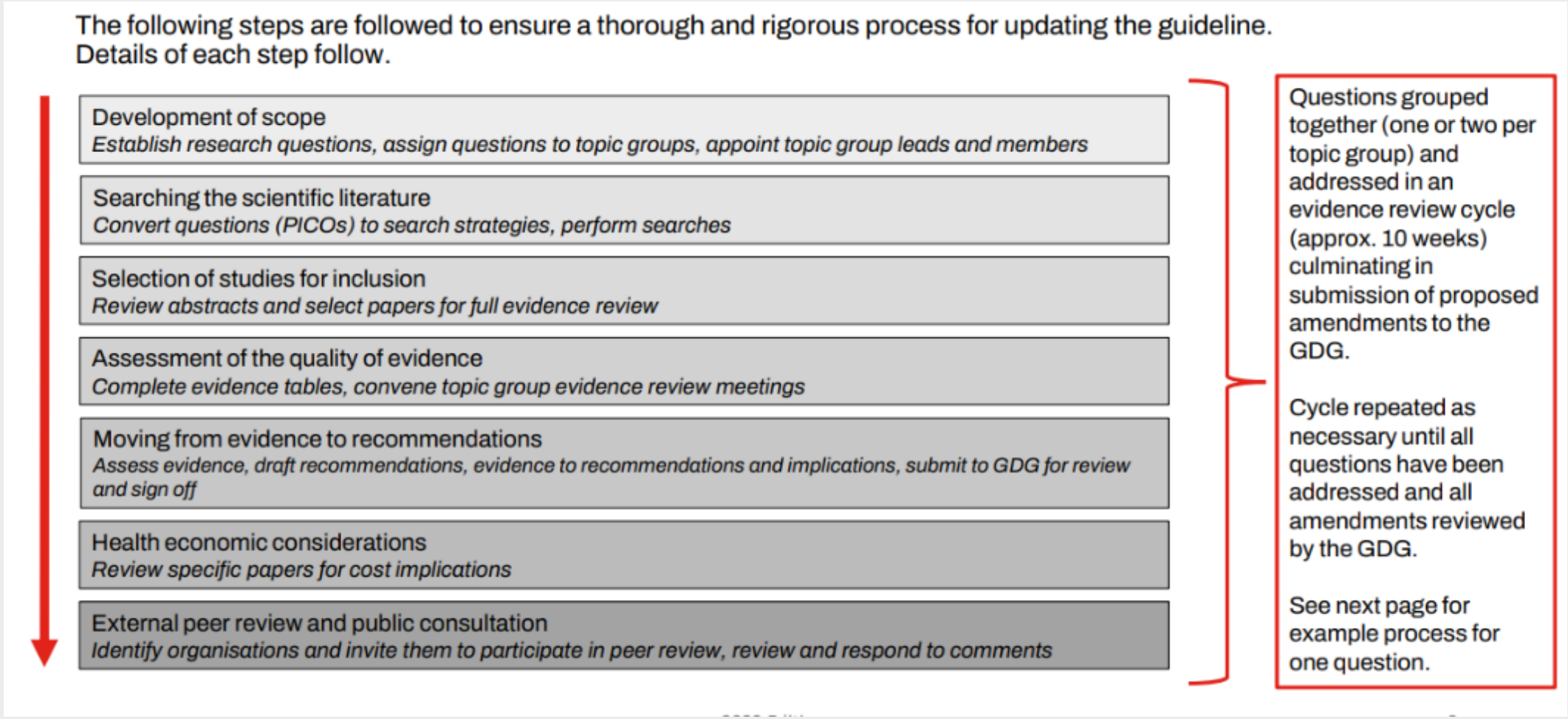
The Guideline Process



The Guideline Process: Organisation Structure



The Guideline Process – seven steps



Update 1: Staffing, what is new?

2.5 Recommendations

A People with stroke should be treated in a specialist stroke unit throughout their hospital stay unless their stroke is not the predominant clinical problem. **[2016]**

B A hyperacute, acute and rehabilitation stroke service should provide specialist medical, nursing, and rehabilitation staffing levels matching the recommendations in Table 2.5 below.

Table 2.5 Recommended levels of staffing for hyperacute, acute and rehabilitation units

	Physio-therapy	Occupational therapy	Speech and language therapy	Clinical psychology / neuro-psychology	Dietetics	Nursing	Consultant stroke physician	Consultant-level practitioner-led ward rounds
Hyper-acute stroke unit	Whole-time equivalents (WTE) per 5 beds*					WTE per bed	24/7 availability; minimum 6.0 thrombolysis trained physicians on rota	Twice daily ward round
	1.02	0.95	0.48	0.28	0.21	2.9 (80:20 registered: unregis-tered)		
Acute stroke unit & stroke rehab-ilitation unit	1.18	1.13	0.56	0.28	0.21	1.35 (65:35 registered: unregis-tered)	Acute stroke unit: 7 day cover with adequate out of hours arrange-ments**	Acute stroke unit: daily ward round** Stroke rehabilit-ation unit: twice-weekly ward round**

* WTE figures are for 7-day working for registered staff and include non-clinical time (such as supervision and professional development) as well as non-face-to-face clinical activity. Registered staff should be augmented by support workers and rehabilitation assistants to achieve the intensity and dose of therapy recommended in Section 4.2 *Rehabilitation approach – intensity of therapy (motor recovery and function)*.

** Consultant stroke physician input may need to be adjusted according to the acuity of the unit. All acute and rehabilitation units should have at least 2 ward rounds per week led by a consultant-level practitioner (physician, nurse or therapist; see Recommendation 2.5K). For recommendations regarding orthoptist staffing, see Section 4.4B *Vision*.

[2023]

- Registered staff
- Non-clinical time
- Non-face-to-face clinical activity (environmental visits, family contact and equipment ordering)
- Unregistered support workers and rehabilitation assistants under the supervision of registered staff

Update 1: Staffing, what is new?

F A multidisciplinary service providing early supported discharge and community stroke rehabilitation should adopt a minimum core team structure matching the recommendations in Table 2.8 and below.

Table 2.8 Recommended levels of staffing for multidisciplinary services providing early supported discharge and community stroke rehabilitation

Discipline	WTE per 100 referrals to service p.a.
Physiotherapy	1.0
Occupational therapy	1.0
Speech and language therapy	0.4
Social worker	Up to 0.5 and at least 0.5 WTE per team recommended locally
Rehabilitation assistant/assistant practitioners	1.0
Clinical psychology/neuropsychology	0.2-0.4*
Nursing	Up to 1.2 and at least 1 full time nurse per team
Medicine	0.1

*This reflects the time that a team member should be co-located within the MDT and could include additional skill mix, e.g. assistant psychologist.

The service should also include:

- Appropriate administration and management (including data management) support;
- Timely access to psychological and neuropsychological services (e.g. Improving Access to Psychological Therapies [IAPT] and community mental health services with stroke-specific training and appropriate supervision, psychology or neuropsychology departments), return to work and vocational rehabilitation services, dietetics, pharmacy, orthotics, orthoptics, spasticity services, specialist seating, assistive technology and information, pain management, advice and support for people with stroke and their family/carers. **[2023]**

Update 1: Staffing, what is new?

THE COCHRANE COLLABORATION®

Early supported discharge services for people with acute stroke

Peter Langhorne, Satu Baylan, Early Supported Discharge Trialists Authors' declarations of interest

Version published: 13 July 2017 Version history

Circulation: Cardiovascular Quality and Outcomes
Volume 13, Issue 8, August 2020
https://doi.org/10.1161/CIRCOUTCOMES.119.006395

American Heart Association.

ORIGINAL ARTICLE

Effectiveness of Stroke Early Supported Discharge

Analysis From a National Stroke Registry

Rebecca J. Fisher, PhD, Adrian Byrne, PhD, Niki Chouliara, PhD, Sarah Lewis, PhD, Lizz Paley, MSc, Alex Hoffman, MSc, Anthony Rudd, MD, Thompson Robinson, MD, Peter Langhorne, PhD, and Marion F. Walker, PhD

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Health Services and Delivery Research
Volume 9 • Issue 22 • November 2021
ISSN 2050-4349

Large-scale implementation of stroke early supported discharge: the WISE realist mixed-methods study

Rebecca J Fisher, Niki Chouliara, Adrian Byrne, Trudi Cameron, Sarah Lewis, Peter Langhorne, Thompson Robinson, Justin Waring, Claudia Geue, Lizz Paley, Anthony Rudd and Marion F Walker

DOI 10.3310/hsdr09220

Dietetic related research questions

Rehab and Recovery:

1. For nutritionally vulnerable stroke patients, **does nutrition support or mealtime interventions**, result in improved outcomes?
2. For acute stroke patients receiving nutrition via a nasoenteric feeding tube, **does a nasal bridle, mittens or other restraining device** improve outcomes compared with not using any device?
3. For patients after a stroke with an unsafe swallow, **does eating and drinking with acknowledged risks or approaches that support this**, improve outcomes, care or patient experience?
4. What are the most effective **treatments for dysphagia** after stroke?
5. What is the **best method to improve oral health** after stroke?

Dietetic related research questions

Long Term Management

1. How should **eating and drinking be managed towards the end of life** after a stroke?
2. What is the best way to make **decisions about artificial feeding and hydration** after stroke?

Lipid Management

1. **What lipid-lowering treatments should be used** in people who cannot tolerate statins, or in whom statins do not sufficiently lower cholesterol, after stroke or TIA?
2. **How low should LDL-C be lowered** in secondary vascular prevention after stroke and TIA?

Organisation of Stroke Services

1. What is the appropriate **staffing and skill mix** for an inpatient stroke service?
2. **What staffing levels** in post-acute care deliver the best outcomes for people with stroke

Update 2: EDAR

- Swallowing section

- Evidence review:
  - 1 paper + 2 guidance documents noted (RCP, RCSLT)

- New recommendation – informed by guidance:
  - EDAR should be considered, and characteristics of a robust decision making process noted:
    - Person centered
    - Involve the person and their family/carer and members of MDT
    - Include a swallowing assessment
    - Include steps to minimise risk

Update 2: EDAR

- Swallowing

N	For people with dysphagia after stroke the option to eat and drink orally despite acknowledged risks should be considered. This decision-making process should be person-centred and taken together with the person with stroke, their family/carers and the multidisciplinary team. It should include a swallowing assessment and steps to minimise risk. **[2023]**	Royal College of Physicians, 2021; Royal College of Speech and Language Therapists, 2021; Guideline Development Group consensus
O	People with stroke who are discharged from specialist treatment with continuing problems with swallowing food or fluids safely should be trained, or have family/carers trained, in the management of their swallowing and be regularly reassessed. **[2023]**	Heckert et al, 2009; Drury et al, 2014; NICE, 2017c; Guideline Development Group consensus
P	People with stroke receiving end-of-life (palliative) care should not have burdensome restrictions on oral food or fluids if those restrictions would exacerbate suffering. In particular, following assessment this may involve a decision, taken together with the person with stroke, their family/carers and the multidisciplinary team, to allow oral food or fluids despite risks including aspiration and choking. **[2023]**	Royal College of Physicians, 2021; Royal College of Speech and Language Therapists, 2021; Guideline Development Group consensus

Update 2: EDAR

- End of Life care
- Evidence review
  - 9 papers + 3 guidance documents
- Commentary:
  - EDAR referenced, describing characteristics of a decision making process
- Recommendations:
  - Consider prior wishes regarding EDAR

2.15 End-of-life (palliative) care

About one in 20 people with acute stroke will be receiving end-of-life care within 72 hours of onset, and one in seven people with acute stroke will die in hospital (Intercollegiate Stroke Working Party, 2016), making stroke one of the most lethal acute conditions in modern medicine. This means that providing high quality end-of-life care is a core activity for any multidisciplinary stroke team. Predicting the prognosis after acute stroke can be challenging and may account for the low proportion of people with stroke identified for end-of-life care in hospital and community settings. Stroke may cause a range of problems including pain and distress, depression, cognitive problems, confusion and agitation, and problems with nutrition and hydration. When these issues are appropriately and holistically managed, distress associated with the end of life for both the person and the family/carers can be alleviated. In particular, while there is the risk of aspiration and choking, rigid adherence to recommendations elsewhere in this guideline on access to oral food or fluids could, in palliative care, result in burdensome restrictions that may exacerbate suffering. The decision-making process to support people to eat and drink with acknowledged risks should be person-centred and involve the person and their family/carers, and other members of the multidisciplinary team and include a swallowing assessment and steps to minimise risk (Royal College of Physicians, 2021; Royal College of Speech and Language Therapists, 2021). The process can be supported by material such as the clinically-assisted nutrition and hydration guidance from the RCP (London)/BMA (2018) at https://www.bma.org.uk/advice-and-support/ethics/adults-who-lack-capacity/clinically-assisted-nutrition-and-hydration. **[2023]**

Advance care planning should take place for those people who may survive the acute stroke with limited life expectancy, to facilitate the timely involvement of specialist palliative care services. **[2023]**

Show less

E People with stroke with limited life expectancy, and their family where appropriate, should be offered advance care planning, with access to specialist inpatient and community palliative care services when needed. The multidisciplinary team should establish whether there is any existing documentation of the patient's wishes regarding management of risks associated with continued eating and drinking and whether it remains relevant, and agree with the patient and/or family/carers an advanced care plan where appropriate. **[2023]**

Update 3: Hydration and Nutrition - Detail and clarification

- Evidence review
  - 3 research questions considered: nutrition support, NGT retention, EDAR
  - 27 papers appraised

- Lack of evidence to significantly change recommendations re nutrition support and NGT retention (NB: see evidence to recommendations section)

- New recommendations:

G People with stroke who require food or fluid of a modified consistency should:

- be referred to a dietitian for specialist nutritional assessment, advice and monitoring;
- have the texture of modified food or fluids prescribed using internationally agreed descriptors;
- be referred to a pharmacist to review the formulation and administration of medication. **[2023]**

L The carers and family of those with a gastrostomy tube should receive training, equipment and ongoing support from a specialist team, e.g. a home enteral feeding team. **[2023]**

Update 3: Hydration and Nutrition - Detail and clarification

- Recommendations where detail has been added:
  - Use of standardized approach for screening hydration and nutritional status
  - “Assessment” for NGT within 24hr of admission
  - Reference to IDDSI
  - Detail around considerations for gastrostomy: including trial of retention methods, shared decision making
  - Consideration of environmental and postural factors
  - On discharge from stroke services, individual should have a documented care plan including monitoring

- Evidence to recommendations:
  - Nutritional composition of nutrition support (Yoshimura et al. 2019) – area of future research
  - NGT retention methods – lack of evidence of acceptability and effectiveness
  - Practical environmental strategies to aid intake – lack of evidence

Update 3: Mouth care - Detail and clarification

- Evidence review:
  - 1 research question
  - 10 papers reviewed including Cochrane Systematic review – Campbell et al 2020

- New recommendation:

> **E** People with stroke and their family/carers should receive information and training in mouth care and maintaining good oral hygiene before transfer of their care from hospital. This information should be clearly communicated within and across care settings, e.g. within a care plan which includes regular dental reviews. **[2023]**

- Recommendations where detail has been added:
  - Frequency of mouth care ≥ x3/day v mechanical removal of plaque ≥ x2/day
  - Additional guidance around use of toothpaste, chlorhexidine gel, toothbrush
  - Additional detail around care of dentures and referral to dental professional if ill fitting/replacement required

Update 3: Mouth care - Detail and clarification

- Evidence to recommendations:
  - Cochrane review (Campbell et al 2020):
    - Compared effectiveness of oral health care interventions
    - Informed some updates to recommendations
    - Identified oral health care as a research priority, with a need for agreed outcome measures
  - Consensus around importance of:
    - Locally agreed roles/responsibilities and
    - A care plan for oral health

Update 3: Swallowing – Detail and clarification

- Evidence Review
  - Abundant evidence investigating treatments for dysphagia: 56 papers (!)
- Recommendations where detail has been added:
  - SLT mentioned as a professional for swallow assessments and swallow rehabilitation
  - Differentiation between compensatory strategies and swallow rehabilitation
  - Reference to IDDSI, pharmacy input and decision making around EDAR.
- Recommendations also added for non invasive stimulation treatments for dysphagia.

Update 3: End of life care – Detail and clarification

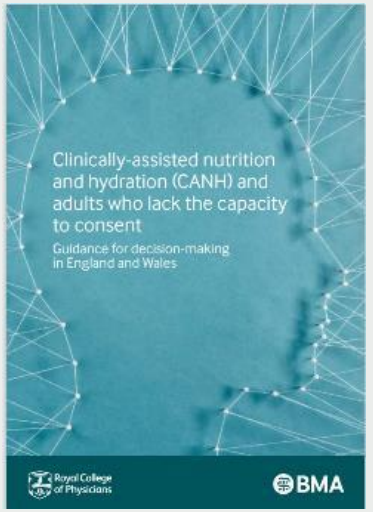
- Evidence review
  - 2 research questions
  - 9 papers + 3 guidance documents

- Recommendations where detail has been added:

C Decisions to withhold or withdraw life-prolonging treatments after stroke including artificial nutrition and hydration should, whenever possible, take the person's prior expressed wishes and preferences into account and should be taken in the best interests of that person. When withdrawing artificial nutrition and hydration, a recognised nutrition and hydration decision-making process should be considered. **[2023]**

D End-of-life (palliative) care for people with stroke should include an explicit decision not to have burdensome restrictions that may exacerbate suffering. In particular, following assessment this may involve a decision, taken together with the person with stroke, their family/carers, and the multidisciplinary team, to allow oral food or fluids despite risks including aspiration and choking. **[2023]**

C-E Royal College of Physicians, 2021; Royal College of Speech and Language Therapists, 2021; Guideline Development Group consensus



- Materials may support decision making processes:
  - Including BMA guidance

Update 4: Training and communication

- Importance of training noted regarding:
  - Gastrostomy care – training for family/carers
  - Mouth care – training for staff and family/carers

- Importance of communication noted regarding:
  - Patient's wishes around EDAR
  - A mouth care plan across care settings
  - On discharge from stroke services, where a nutritional care plan, including monitoring should be in place

Guideline wide updates

1. **More** eligible patient groups for reperfusion therapy with 'advanced imaging'
   - Thrombolysis up to 9 hours and wake-up stroke
   - Basilar artery thrombosis up to 12 hours
   - Thrombectomy with established infarction and salvageable brain tissue up to 24 hours

2. **More** aggressive secondary prevention
   - A new, lower target of LDL below 1.8mmol/L (non-HDL below 2.5 mmol/L)
   - Lower target BP for IS and ICH (lower than NICE):
     Clinic BP below 130/80, home BP below 125/75
     Encourage home or ambulatory measurement to guide self-management

3. **More** intensive rehab in hospital and at home

Key updates for rehab and recovery

- **Rehabilitation potential**
  - People should be considered to have potential to benefit from rehabilitation at any point after their stroke

- **Increase in intensity and dose of therapy:**
  - For motor recovery:
    - Daily therapy for up to 3 hours/day, and
    - Daily activity for up to 6 hours/day
  - For language recovery:
    - Use of assisted technology and telerehabilitation (to supplement other therapy)
    - Therapy offered for as long as individuals continue to make gains
    - May consider comprehensive aphasia programmes from 3 months after stroke if tolerated.

- **Motor recovery:**
  - Offered cardiorespiratory training or mixed training once medically stable

Key updates for rehab and recovery

- **Psychological Care**
  - Routine screening for delirium
  - Consider screening for apathy alongside cognitive and mood disorders

- **Fatigue**
  - Assess and review periodically for post- stroke fatigue

- **Holistic reviews**
  - Comprehensive reviews for all patients at 6 months and annually thereafter

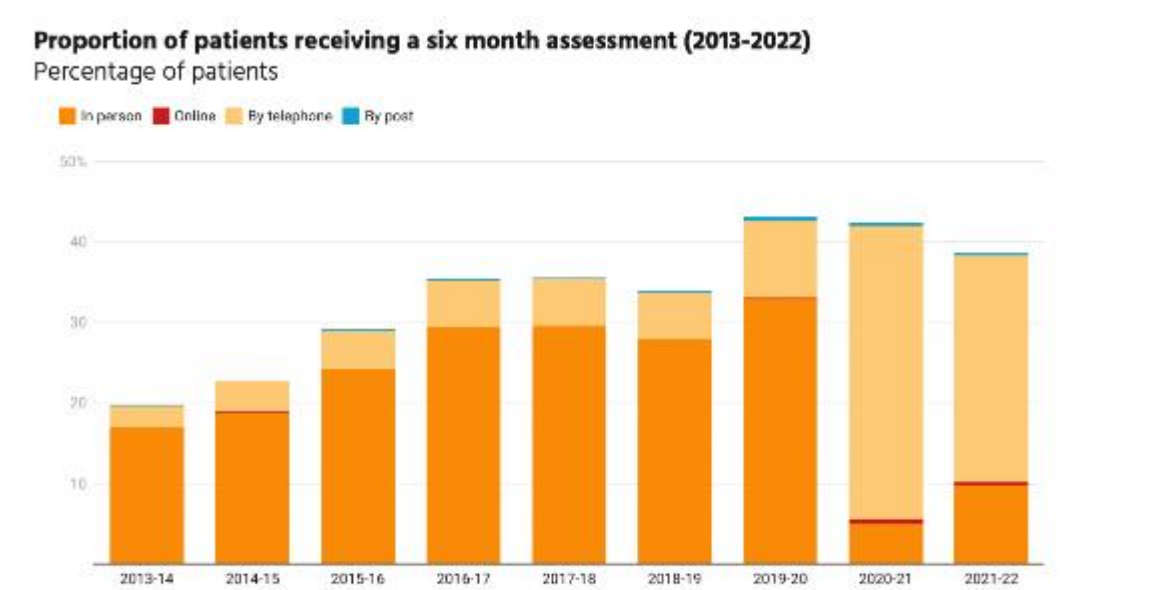


Figure 21: Proportion of patients receiving a follow-up six month after stroke, by follow-up method, 2013 to 2022.

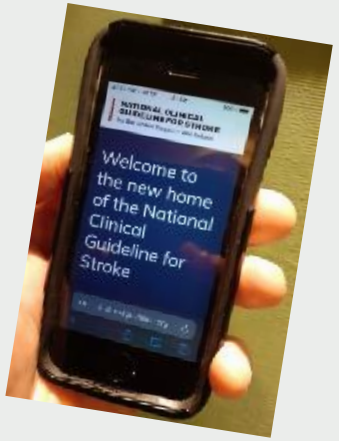
Key updates for long term management

- **Physical activity:**
  - Cardiorespiratory or mixed training for fitness
  - Equipment and facilities should be made available
  - Outside statutory health services
    e.g. fitness trainers
  - Collaboration with cardiac and pulmonary rehabilitation

- **Further Rehabilitation**
  - Reviews beyond 6 months to identify further needs
  - Interventions offered if further goals can be identified and agreed
  - People with stroke should be supported with their own self-management plan

What are the implications for dietitians?

- Make the most of resources at https://www.strokeguideline.org/
- Opportunity to support the case for change, implementation and evaluation
- Opportunity to address gaps in evidence
- Opportunity to build evidence to drive improvements in nutritional care.



What are the next steps?

1. What is one thing you will do in response to the new guideline?

2. What do the updates mean for you locally?

3. What do the updates mean for us nationally?

4. What support can we leverage?
   - Local and national networks – dietetics, stroke and beyond
   - Stroke guideline contributors group – watch this space!
   - BDA Neurosciences Group Stroke Working Party and BDA Neurosciences Specialist Group
     - To join the BDA NSG SWP – contact Cara Lewis and Eleanor (Elle) Williams.

Conclusions: main dietetic related updates

1. Staffing levels updated

2. Consideration of and decision making around EDAR

3. Detail and clarification around a range of elements of care

4. Importance of training and communication
   - eg mouth care, gastrostomy care

5. **What will you do next?**

Thank you and Questions

- Thank you:

NATIONAL CLINICAL GUIDELINE FOR STROKE
for the United Kingdom and Ireland

BDA The Association of UK Dietitians

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