

**P.023****Review of imaging changes, cognitive decline, and dementia risk in cancer survivors after chemotherapy**

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Background: Cancer survival rates in Canada have been improving, leading to a steady increase in the number of survivors entering the typical ages of dementia onset. Yet, some cancer treatments (e.g. chemotherapy) are neurotoxic and adversely affect normal brain functioning. We conducted a review to examine changes observed in brain imaging and cognitive measures in survivorship, and long-term risk of dementia among cancer survivors. Methods: 91 Primary studies were selected from PubMed. Inclusion criteria were studies investigating the changes in brain imaging, cognition, and future dementia risk among adult survivors who received chemotherapy. Study quality was assessed based on 1) prospective, controlled design, 2) sample size, and 3) validated imaging and cognitive metrics. Results: Imaging studies identified MRI-based structural grey and white matter changes and functional network changes among survivors. Cognitive studies reported heterogeneous impairments in attention, memory, and executive function. In studies that examined dementia risk among cancer survivors, 67% reported lower risk of dementia, while 33% reported no association or a higher risk. Conclusions: While short-term cognitive impairment with associated changes on brain imaging is widely reported, findings concerning future or long-term cognitive impairment are mixed. Studies are warranted to identify potential connections between short-term and long-term cognitive function after cancer treatment.

**P.024****Sex and gender reporting in clinical trials among neurological US Food and Drug Administration approvals**

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Background: Sex and gender are related but distinct determinants of disease, treatment response, and research reproducibility whose consideration is increasingly required for research funding. Nevertheless, the quality of sex and gender reporting in neurological randomized controlled trials (RCTs) remains unknown. Methods: This ongoing study of RCTs associated with Food and Drug Administration neurological drug approvals aims to determine the frequency of accurate reporting of RCT participants' sex and gender. Secondary outcomes include changes in reporting over time and RCT design characteristics. Results: Preliminary analysis included 145 RCTs (153,410 participants) associated with 77 medications approved in 1985-2023, most commonly for epilepsy (19%), migraine (16%), and multiple sclerosis (16%). Sixty-six RCTs (45.5%) used sex-related terms appropriately. Nine RCTs (6.2%) reported gender accurately. Fifty-three RCTs (37%) used

sex- or gender-related terms interchangeably. There are no statistically significant differences in the proportions of studies reporting sex and/or gender accurately when comparing those published until versus after 2017. No RCT reported sex or gender collection methods, definitions of sex or gender, or including sex or gender minority participants. Conclusions: Preliminary results suggest shortcomings in reporting sex and, especially, gender accurately and inclusively among neurological drug RCTs and no significant improvement thereof in recent years.

**STROKE****P.025****Accuracy of code stroke activations: a tale of two comprehensive stroke centres**

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Background: We evaluated the accuracy of code strokes activations at two comprehensive stroke centres in Toronto, Canada. Methods: We conducted a multi-centre, retrospective cohort study of all adult patients seen as code stroke in emergency rooms (ER) of two comprehensive stroke centres (CSC) in Toronto, Canada between January 1, 2022 and Dec 31, 2022. We included cases where the code stroke was activated in the field by paramedics and where it was activated in the ER by a physician. We reported off-criteria code stroke activations as the proportion of code stroke activations that did not meet all criteria for activation, and described the criteria that were not met. Results: A total of 677 (61.9% paramedic) code strokes were seen at CSC1 and 439 (80.6% paramedic) at CSC2. At CSC1, 21.2% paramedic-activated and 38.6% ER-activated were off-criteria, and at CSC2, 14.2% paramedic-activated and 48.1% ER-activated code stroke were off-criteria. Most of these were due to incorrect assessment of the last seen normal time. Conclusions: One in five code strokes did not meet criteria for activation. Improving the accuracy of paramedic and ER assessment of last seen normal time may be an avenue to reduce off-criteria code stroke activations.

**P.026****Success with incrementally faster times to endovascular therapy (SWIFT-EVT): a systematic review and meta-analysis**

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Background: Previous research demonstrates that for acute ischemic stroke (AIS) cases, rapid endovascular therapy (EVT)

performance improves outcomes. This study provides updated metrics summarizing estimates for modified Rankin Scale (mRS) gains accrued by streamlining time to EVT. Methods: A systematic review and meta-analysis (MA) was conducted using electronic databases. Eligible studies reported time-benefit slope with times from AIS onset (or time last-seen-normal) to EVT commencement; the predictor was onset-to-groin (OTG) time. Primary and secondary outcomes were 90-day functional independence (mRS 0-2) and 90-day excellent function (mRS 0-1), respectively. Results: The five included studies showed increased chance of good outcome with each hour of pre-EVT time savings for mRS 0-2 for 0-270' (OR 1.25, 95% CI 1.16-1.35, I<sup>2</sup> 40%) and 271-360' time frame (1.22, 95% CI 1.12-1.33, I<sup>2</sup> 58%). For studies assessing mRS 0-1, pooled effect estimates were appropriate for the 0-270' time frame (OR 1.34, 95% CI 1.19-1.51, I<sup>2</sup> 27%) and the 271-360' time frame (OR 1.20, 95% CI 1.03-1.38, I<sup>2</sup> 60%). Conclusions: Each hour saved from AIS onset to EVT start is associated with a 22-25% increased odds of functional independence, a useful metric to inform patient-specific and systems planning decisions.

## P.027

### **KNOW BRAIN EMBRACE CARE: A study investigating young adult stroke patients' knowledge and behaviour around lifestyle**

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Background: Stroke incidence is rising among younger adults (≤65yrs). Modifiable and behavioural risk factors are linked to stroke; however, limited understanding of knowledge and behaviour exists around preventative/lifestyle medicine (LSM) among this patient population. Study aim was to assess younger adult stroke patients' lifestyle knowledge, habits, and barriers. Methods: A cross-sectional design was employed. Data were collected through an online, self-reported survey following a routine stroke prevention clinic visit and analyzed using descriptive and inferential statistics. Results: Sample included 103 participants (56.3% women, 60% white, mean age 47.6, 54.5% prior stroke). Majority (63%) understood current healthy lifestyle recommendations around blood pressure, sleep, and alcohol use, but fewer (<24.3%) around exercise and diet. Almost 70% ate processed food weekly, with emotions and social/family situations influencing eating habits. Interestingly, despite not understanding the current recommendations, >80% exercised moderately (3.5d/wk) with work and family responsibilities as main barriers. Over 50% slept <7hrs/night, had moderate to high stress levels, and implemented different coping strategies (food, TV, video games, and exercise). Majority (82.4%) reported willingness to change habits. Conclusions: Our findings provide valuable insight on young adult stroke patients' preventative/LSM-related

knowledge, habits, and barriers and provide new opportunities for the development of brain care-related initiatives.

## P.028

### **Exploring young adult stroke patients' lived experience, healthy lifestyle habits, and recommendations for designing innovative brain care-related initiatives**

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Background: Over the past decade, worldwide stroke incidence has been increasing among young adults (≤65years), which has implications during the most dynamic period of their life. There is a dearth of research exploring young adults stroke patients' experiences, healthy lifestyle habits, preferences, and recommendations for brain care-related initiatives. The study aimed to gain knowledge and a deeper understanding of young adult stroke patients' experiences, lifestyle habits, and support needs for brain care-related education and interventions. Methods: A descriptive qualitative study was used. Participants who took part in the quantitative phase of a larger mixed methods study (n=103 that expressed an interest in the qualitative phase, were invited to take part in semi-structured focus groups. Simultaneous data collection and analysis are being conducted. Data are being analyzed using inductive thematic analysis outlined by Braun and Clarke (2006). Results: Findings will be available by May 20, 2024. Conclusions: Study findings will be essential to 1) mobilize an understanding of young adult stroke patients' lived experience; 2) reconceptualize the current model of stroke care and services that is traditionally geared towards older adults; and 3) inform the development of brain care-related education and interventions to meet the unique needs, priorities, and preferences of young adult stroke patients.

## P.029

### **Endovascular therapy for cerebral venous thrombosis: an international survey**

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Background: Cerebral venous thrombosis (CVT) is a rare cause of stroke, with 10–15% of patients experiencing