20% in a previous 2004 telephone survey (p=0.00001) . **Conclusions:** There is a dramatic improvement in the awareness and knowledge of stroke and heart disease amongst Chinese-Canadians compared to a previous telephone survey in 2004. This significant change could be due to difference in survey technique, but these improvements could also be due to the ongoing health promotion efforts by the Chinese-Canadian Council in support of the Heart & Stroke Foundation.

P.034

Evaluation of modeling software for deployment of Pipeline stents in the endovascular treatment of intracranial aneurysms

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Background: Flow diversion is an established endovascular method for the treatment of intracranial aneurysms. The Pipeline Embolization Device (PED) remains the only FDA-approved stent available in USA and Canada since 2011. Stent position plays an important role in determining long-term success. The Leonardo Workstation(Siemens) is used for planning the ideal stent size and post-deployment destination. This first-ever study evaluates the accuracy of modeling software in predicting PED location post-deployment. **Methods:** 48 PED-assisted cases were performed 2012-2018 at the University of Alberta Hospital. 20 fit our preliminary inclusion criteria (single stents, simple anatomy). The proximal and distal landing zones were used to model the ideal stent using Leonardo. Accuracy was measured by comparing the Leonardo-predicted stent length vs known length. Results modeling against the dimensions predicted by AngioSuite, an app-based interface designed for use in the planning stages. **Results:** Leonardo workstation is accurate within 5mm at predicting final length for stents oversized by ≥0.25 cm. The predicted difference by Leonardo workstation & AngioSuite did not demonstrate statistical significance (P=0.36, P=0.24 respectively). **Conclusions:** Current angiographic planning tools are accurate at predicting PED deployment within 5mm. Complex vascular anatomy and deployment of multiple stents make prediction challenging. Analysis of these complex cases is currently underway.

P.035

Impact of a telestroke system on acute ischemic stroke patient outcomes and thrombolysis rates

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Background: Telestroke can improve ischemic stroke patient outcomes by improving access to physicians specialized in stroke care and increasing the rate of thrombolysis. The aim of this study to assess the effect of the newly implemented Telestroke service on ischemic stroke patient outcomes in New Brunswick, Canada, a province with a high rural population. **Methods:** By means of a retrospective chart review, data for 366 adult acute ischemic stroke patients (Telestroke = 15.3%; non-Telestroke = 84.7%) were collected from emergency departmentsspanning five sites in the province. Outcomes included home discharge rates, complications (i.e., hemorrhage,angioedema),

mortality, rate of thrombolysis and time to treatment. **Results:** No significant differences emerged for home discharge rates, complications, mortality or door-to-needle time. Telestroke patients had a significantly greater rate of thrombolysis treatment (51.8% vs 6.1%) and significantly less door-to-CT time (*M*= 27.63 min vs *M*= 100.78 min) compared to the non-Telestroke group. **Conclusions:** Overall, both groups had similar outcomes with some trends toward improvements for patients utilizing Telestroke.

P.036

Stroke in people with Down Syndrome: a retrospective study

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Background: There are only few studies approaching the prevalence and cause of stroke in children and adults with Down Syndrome (DS). **Methods:** We did a retrospective study of our cohort of 4962 patients of Jerome Lejeune Institute since 2007. We collected age of stroke, clinical presentation, cause (TOAST classification), treatment and clinical course. **Results:** We identified 20 patients from 6 to 56 years old .In all cases, it was a stroke of ischemic origin.: 8 children with a prevalence of 0.33%. 4 had a cardio-embolic origin, 3 secondary to Moya-Moya syndrome and one of undetermined origin. 12 adults (21 to 52 years old) with a prevalence of 0.46%.The majority of the causes of these ischemic strokes are indeterminate (9 of 12), **Conclusions:** We found a low prevalence and an ischemic cause in all cases of stroke, which differs from the general population. For pediatric stroke, the causes are expected thromboembolic in a context of heart disease most often or secondary to a Moya-Moya syndrome. For adult strokes, the average age is younger than that in the general population and the cause is indeterminate in most cases. We must better explore our patients to identify the risk factors in DS population.

P.037

Keeping track of time: emphasizing symptom onset-to-hospital time in stroke care

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Background: The Canadian Stroke Best Practice Recommendations target a median door-to-needle time of 30 minutes. However, brain tissue becomes damaged with any delay from symptom onset. Efficiencies may be gained prior to hospital arrival, by evaluating the timeliness of patient access to hospital from symptom onset, as well as by improving healthcare provider communication, prior to arrival of the patient. **Methods:** We engaged with hospital administration, paramedic services, allied health colleagues, physicians, and engineers, to develop Kairos, a secure online platform that healthcare providers can utilize to track progress en route to hospital, as well as to share pertinent stroke patient information, prior to arrival. **Results:** Kairos is built on React Native, allowing users to access it on android or iOS devices. Paramedics select patient identification, symptom