significantly across different specialties (ranging from 90.4% to 56.5%, $p<0.001$) and different geographic regions (ranging from 89.9% to 72.0%, $p<0.001$). Physicians with a higher adherence to treatment guidelines performed significantly more EVT cases per year than those with a lower adherence (median 30, IQR 35 vs. 15, IQR 25, $p<0.001$). In level 2B scenarios, the overall decision rate in favor of EVT was lower (66.6%) and the differences in decision rates between different specialties (73.7% - 40%, $p<0.001$) and regions (73.9% - 47.1%, $p<0.001$) were more pronounced. Again, physicians opting for EVT performed significantly more EVTs per year (median 30, IQR 30 vs. 20, IQR 30, $p<0.001$).

Abstract E-133 Figure 1

Conclusion The high overall adherence to current endovascular stroke treatment guidelines suggests strong consensus within the neurointerventional community. Physician caseload played an important role in our sample.

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E-134 IN-HOSPITAL COMPLICATIONS OF THROMBOLYTIC TREATMENT FOR ACUTE ISCHEMIC STROKE IN DIALYSIS-DEPENDENT PATIENTS

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Background Intravenous thrombolysis remains an underutilized treatment for acute ischemic stroke (AIS) due to several relative and absolute contraindications. Previous studies have investigated outcomes for the majority of AIS patients receiving thrombolysis without including the subset of renal failure patients requiring dialysis. This study aims to investigate short-term outcomes of thrombolytic treatment for dialysis-dependent patients who suffered in-hospital complications.

Methods This retrospective cohort study utilized data from the 2012–2015Q3 Nationwide Inpatient Sample (NIS). ICD-9 codes identified adult patients (ages 18+) who received thrombolytic treatment for AIS while on dialysis for renal failure, and then further isolated patients diagnosed with in-hospital complications. Complications include intracerebral hemorrhage (ICH), pneumonia, urinary tract infection (UTI), sepsis, deep venous thrombosis (DVT), and pulmonary embolism (PE). Data for patients who were missing important clinical identifiers (age, gender, race, mortality) and did not receive IV thrombolysis or dialysis were excluded. Data analyses assessed hospital mortality rate, length of stay (LOS), inpatient charges, and average age of admission.

Results Of the 5,745 encounters with AIS patients treated with thrombolysis while on dialysis for renal failure, 189 dialysis-dependent patients had in-hospital complications. These patients experienced:

- Lower rate of ICH (1.1% DD vs. 4.6% no DD, $p<0.0001$).
- Higher rate of pneumonia (5.4% DD vs. 2.9% no DD, $p<0.0001$).
- Lower rate of UTI (2.5% DD vs. 4.2% no DD, $p<0.0001$).
- Higher rate of sepsis (11.4% DD vs. 1.9% no DD, $p<0.0001$).
- Higher rate of DVT (15.6% DD vs. 3.2% no DD, $p = 0.004$).
- No significant difference in rate of PE (3.3% DD vs. 3.3% no DD).

Conclusion This study aims to inform physicians to better manage dialysis-dependent renal failure patients receiving IV thrombolysis for AIS. These patients experience lower rates of ICH and UTI, and higher rates of pneumonia, sepsis, and DVT. These findings suggest that placing clinical focus on pneumonia, sepsis, and/or DVT prevention before administering IV thrombolysis may be critical for improving short-term in-hospital outcomes for AIS. Future research should aim to investigate different thrombolytic agents to determine the optimal choice for dialysis-dependent patients with pneumonia, sepsis, and DVT, as well as delineate differences in approaches to achieve best outcomes for dialysis-dependent renal failure patients receiving IV thrombolysis.

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E-135 MECHANICAL THROMBECTOMY FOR SMALL AND MEDIUM VESSEL OCCLUSION: A RURAL EXPERIENCE

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Recent clinical trials have established that treatment of acute ischemic stroke secondary to large vessel occlusion with mechanical thrombectomy leads to improved revascularization and functional outcomes. Thus, the guidelines in treatment of ischemic stroke have been updated to reflect the results found in current literature. However, thrombectomy of small and medium vessel occlusions are a more controversial topic. The aim of the present study is to evaluate the outcomes of patients treated with mechanical thrombectomy for acute ischemic stroke secondary to more distal vessel occlusion and to highlight process times and

outcomes in a center that receives patients from rural and underserved areas. We retrospectively reviewed the electronic medical record of 38 patients admitted to Sanford Health Cerebrovascular Service in Fargo, ND between March 2015 and May 2017 who underwent endovascular intervention for acute ischemic stroke secondary to a small caliber vessel occlusion. An average change in National Institutes of Health Stroke Scale (NIHSS) score of 4.94 was observed after intervention with mechanical thrombectomy with 26.31% of patients having a decrease in NIHSS of 10 or more and 36.84% of patients having a reduction of 6 or more. Successful recanalization was achieved in 94.74% of cases. Given the high rates of revascularization and significant reductions in NIHSS scores, mechanical thrombectomy may be reasonably extended to patients with occlusion of smaller, more distal vessels.

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E-136 BLOOD PRESSURE MANAGEMENT 24 HOURS AFTER MECHANICAL THROMBECTOMY FOR ACUTE ISCHEMIC STROKE

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Objective/Purpose Mechanical thrombectomy (MT) has become the standard of care for patients with acute ischemic stroke with large vessel occlusion; however, there are still no well-established guidelines for blood pressure (BP) management after this groundbreaking procedure. The purpose of this study was to evaluate whether variance in BP management in the first 24 hours after MT has a measurable effect on patient outcome.

Methods We conducted a retrospective cohort study in consecutive ischemic stroke patients who underwent MT at our comprehensive stroke center between January 2013 and August 2017. Eligible patients were included for analysis of maximum, minimum, average systolic and diastolic BP on arrival and in the first 24 hours after the MT. For the functional outcome measures, discharge and after 90 days modified Rankin scale (mRS) were utilized. The effect of BP management on outcome was analyzed using multivariable regression analysis.

Results Among the 216 consecutive patients admitted after MT for acute ischemic stroke in the defined time, 83 (38.4%) met all inclusion criteria, and 41 (49%) had a good functional outcome with mRS of 0–3 at 90 days. Average systolic BP was 128.4 mmHg (range 96.9 - 152.2 mmHg) in the first 24 hours after MT. Of all measures investigated, increasing age of the patient ($R^2 = 0.41$, $p = 0.0001$), elevated systolic BP on arrival ($R^2 = 0.34$, $p = 0.0015$), and maximum systolic BP in the first 24 hours ($R^2 = 0.30$, $p = 0.005$) were associated with poor functional outcomes at discharge and 90 days. No significant difference in functional status was observed when evaluating the average BP maintained during the first 24 hours after MT ($R^2 = 0.15$, $p = 0.16$) or the ethnicity of the patient ($R^2 = 0.08$, $p = 0.46$).

Conclusion Increasing age, elevated systolic BP on arrival, and maximum systolic BP in the first 24 hours after MT were

Abstract E-136 Table 1 Study Demographics and Initial Results

Gender	39 Female, 44 Male
Age	Avg 68 years old, range 25 - 97
Ethnicity	52% White, 15% Hispanic, 3% Black, 20% Asian, 10% Unknown
NIHSS	Average 16
tPA Administration	36 Yes, 47 No
Length of Stay	7.4 days
Average SBP	128.4 mmHg, range 96.9 - 152.2 mmHg
Average DBP	65.9 mmHg, range 47.1 - 83.7 mmHg
Disposition	22 Home, 9 ARU, 31 SNF, 3 Hospice, 18 Deceased

associated with worsened outcomes in our single-center retrospective study. Prospective, multicenter and randomized control trials are necessary to identify and establish future BP guidelines post MT.

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E-137 MICROCATETER INJECTIONS IN ACUTE STROKE THROMBECTOMY

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Introduction Timing of recanalization and safety of endovascular thrombectomy are important factors determining the final clinical outcome of acute stroke interventions. Appropriate position of the aspirating catheter and placement of stent retrievers are of paramount importance to achieve both these goals. Microcatheter injection (MCI) is a simple yet effective method to confirm appropriate position of the microcatheters and also to evaluate the collateral circulations. In this study, we evaluated the MCI applications in our practice and how it affected the procedural management of our patients with acute stroke.

Methods In this retrospective study, 200 patients with middle cerebral artery occlusion who underwent acute intervention from March 2015 to August 2018 were enrolled. All the charts, peri-operative images including CT scans and MRIs, and endovascular interventions were reviewed.

Results Out of 200 enrolled patients, 122 were female. The average age was 68.8 years and 141 had a baseline modified Rankin Scale (mRS) of less than 3. MCI was used in 72 patients leading to microcatheter repositioning in 15 instances. Average NIHSS at 90 days was 24.6 while 57 patients had a mRS less than 3 at 3-month follow up. Procedural time was significantly shorter in the non-MCI group (48.2 min vs. 76.5, $p < 0.01$), non-MCI was associated with significantly better TIC1 2B/3 reperfusion (96.6% vs. 88.7%, $p < 0.05$), and non-MCI patients had a significantly better 3-month clinical outcome of mRS ≤ 3 (48.5% vs. 46.7%, $p < 0.05$). Of note, MCI did not increase risk of hemorrhagic conversion or post-procedural subarachnoid hemorrhage.

Conclusion Though MCI theoretically helps with appropriate microcatheter positioning across an occlusion during thrombectomy, it was used as a technique in only in 36.0% of the cases in our cohort. Our data supports that performing MCI in stroke thrombectomy is significantly associated with longer procedural times, lower rates of TIC1 2B/3 reperfusion, and worse 90 day outcomes (mRS > 3) compared to not