



CENTER FOR **CONNECTED CARE**

A System Wide Approach to Telemedicine

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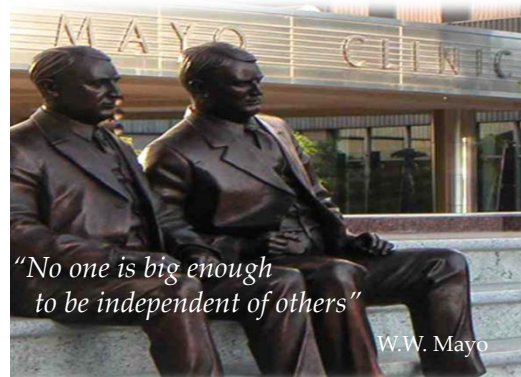
Product Manager, Center for Connected Care, Mayo Clinic

November 3, 2017, Arizona Telemedicine Course, Flagstaff Medical Center, Flagstaff AZ

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About Mayo Clinic

- Nonprofit committed to Clinical Practice, Education and Research
- >63,000 employees
- >4,500 physicians
- > 1.3 million patients a year from all 50 states and > 136 countries
- 3 Destination Centers (Arizona, Florida and Minnesota)



*"No one is big enough
to be independent of others"*

W.W. Mayo

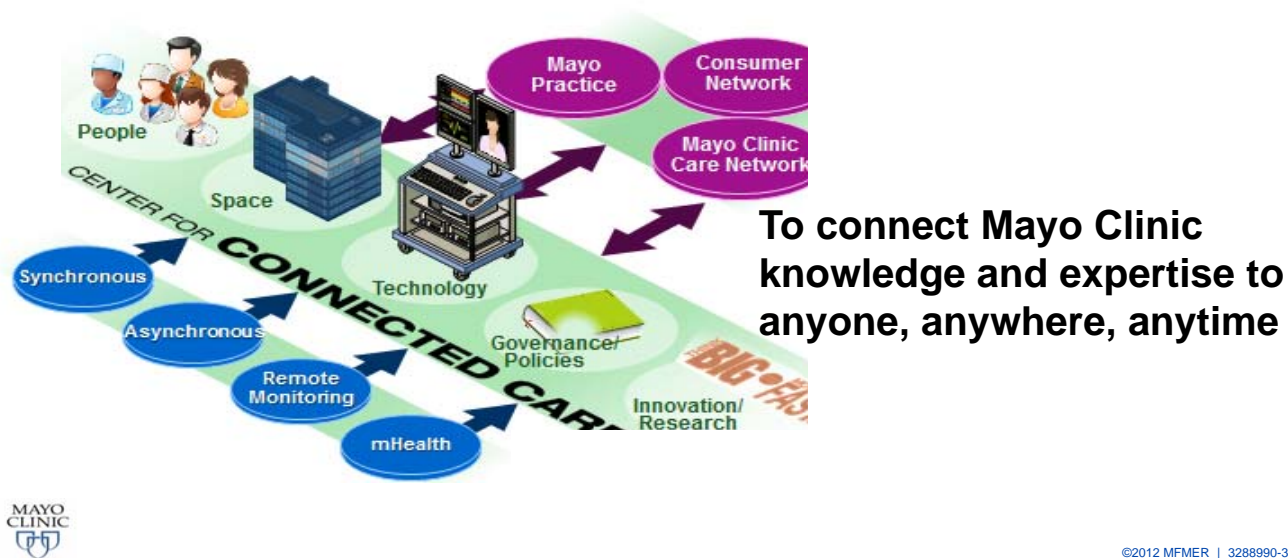
Primary Value:

The needs of the patient come first



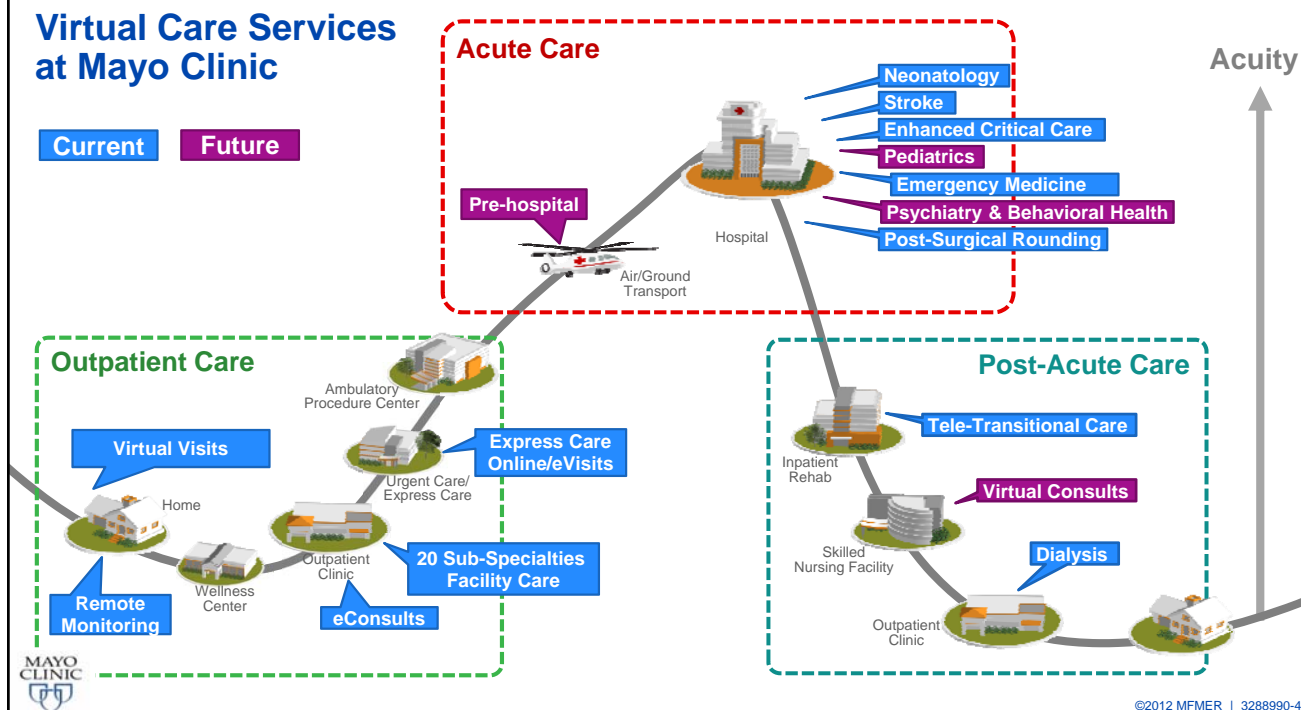
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Center for Connected Care Vision Statement



Virtual Care Services at Mayo Clinic

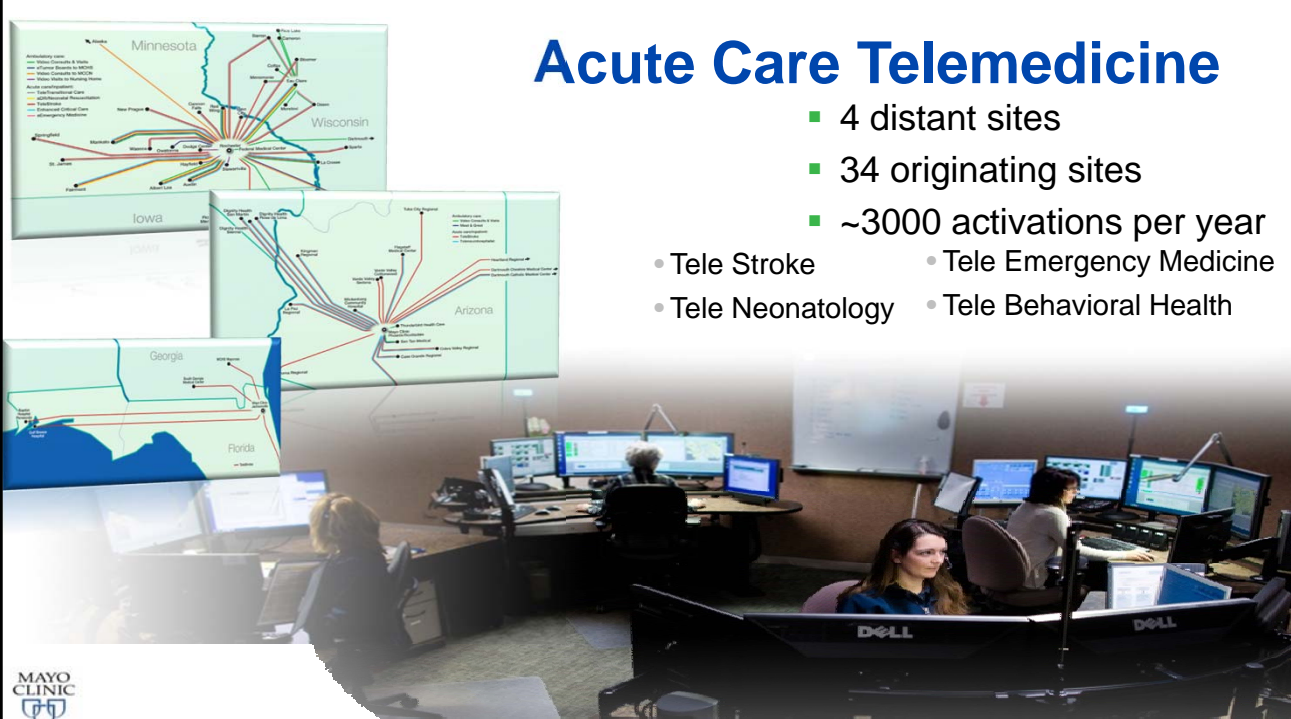
Current Future



Acute Care Telemedicine

- 4 distant sites
- 34 originating sites
- ~3000 activations per year

- Tele Stroke
- Tele Emergency Medicine
- Tele Neonatology
- Tele Behavioral Health



MAYO CLINIC

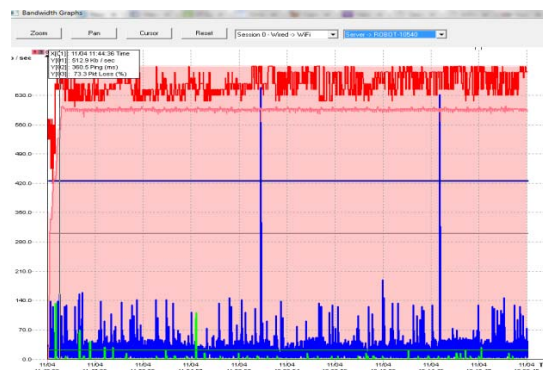
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Convergence on Technology Product

- **Why:**
 - Multiple products with high failure rates
 - Technical and operational support house within the clinical departments
- **What did it take:**
 - Buy-In from multiple shared services teams
 - IT approvals for products that fell outside of the traditional model
 - Partnerships across 5 IT units, Connected Care product team, and InTouch Health
 - Held > 85 training sessions
 - Trained > 500 staff



Optimized Network Connection

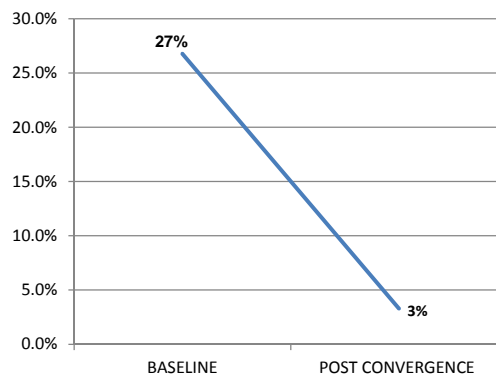


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Results

- Standardization of products across all acute care telemedicine services
- Deployment to 39 Emergency Departments and Labor and Delivery units across Arizona and Midwest
- Implemented 24x7 support model
- Standardized contract and service level agreement language
- Enabled administrative operations convergence
- Enabled clinical service activation centralization

Technical Issue Trend



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Convergence of Administrative Operations

- Why:
 - Multiple, similar administrative processes across different departments
 - Redundancy within projects
 - All implementations “Started from Scratch”

- What did it take:
 - Centralized oversight within the Center for Connected Care
 - Standardization of documentation, billing, reporting, credentialing, processes
 - Coordination groups:
 - Emergency Telemedicine Convergence Group: multi-departmental oversight for product convergence project in 2016
 - Acute Care Telemedicine Coordinating Group: multi-departmental coordination group for new acute care telemedicine initiatives in 2017

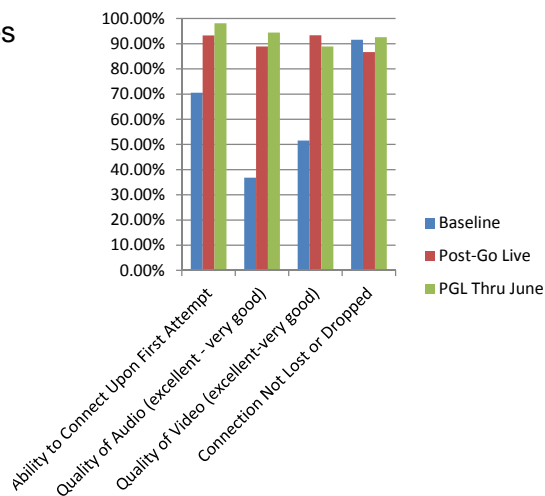


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Results

- Dedicated implementation and support resources for the acute care telemedicine product line
- Diffusion toolkit developed to standardize processes and timelines to increase efficiency of implementations
- Standardized training, education programs, and learning content for care teams and providers
- 78 care team training sessions with 420 care team staff trained in 4 weeks
- Streamlined processes to support licensing, credentialing and privileging of telemedicine providers

Provider Satisfaction



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Contributing Success Factors

- Proactively resolving issues before care teams are aware
- Stabilization of the product and proactive monitoring of the network and endpoints increases availability and reliability
- Partnership with IT* and InTouch Health has improved stability of the endpoints at Mayo Clinic campuses
- Continuous feedback to the practice regarding upcoming system outages and communication to use back-up plans
- Clinical service training at implementation with access to ongoing and ad hoc training
- Mock calls and simulation center access for telemedicine providers
- Simulated service activations for new care team members

Centralization of Service Activation

- Why was it needed:
 - Same care teams calling different numbers for acute care telemedicine services
- What did it take:
 - Establishment of a discrete phone number that prioritizes calls within the call center.
 - Establishment of decision trees that assist in meeting the target turn around time.
- Result:
 - All Midwest activations centrally managed through the Admissions and Transfer Center
 - Projected enterprise-wide activation centralization by June 2018



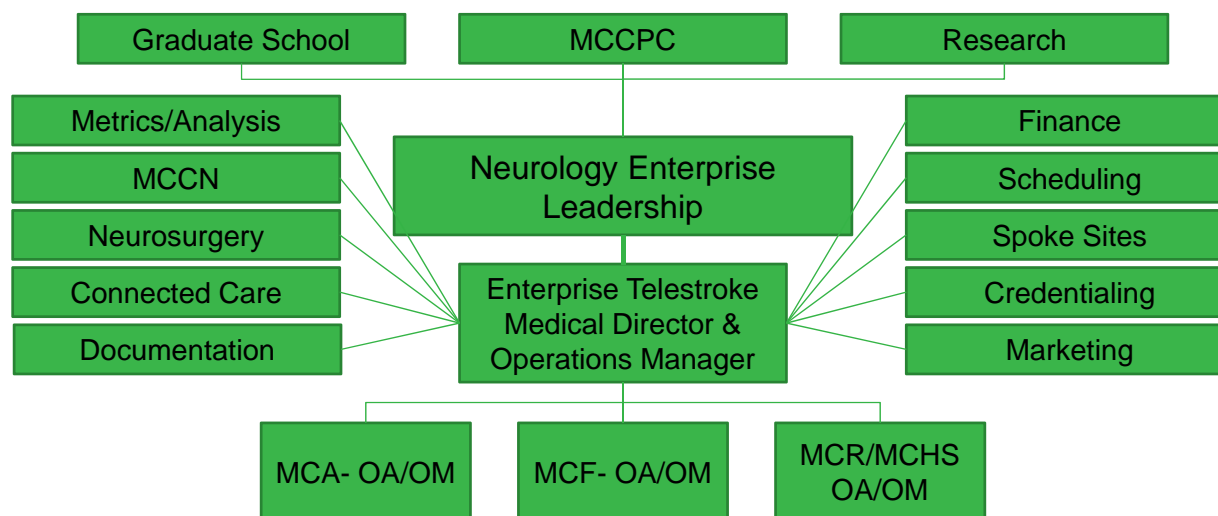
Convergence Impact on Telestroke

- Growth
 - Stability of the products and formalized training resulting in a 50% increase in volumes to the Midwest telestroke program
- Standardization
 - All neurologists using the same products
 - Standardization of clinical algorithms
- Transition
 - Ability to move from 3 regional services to 1 enterprise program in 2018
 - Convergence of clinical staffing



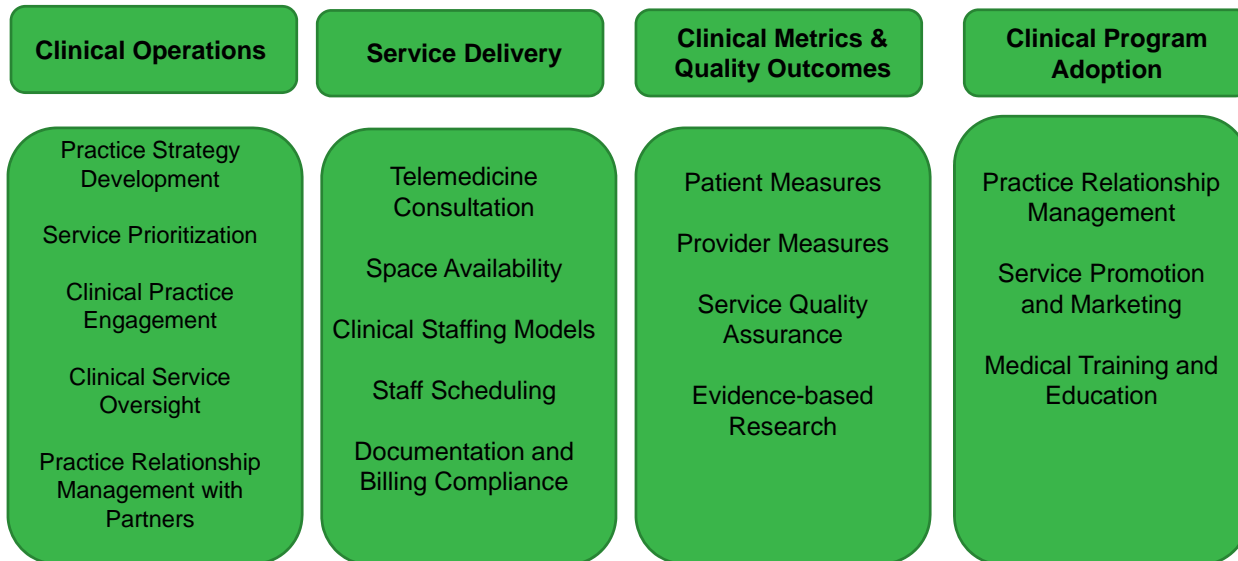
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Centralized Governance Structure



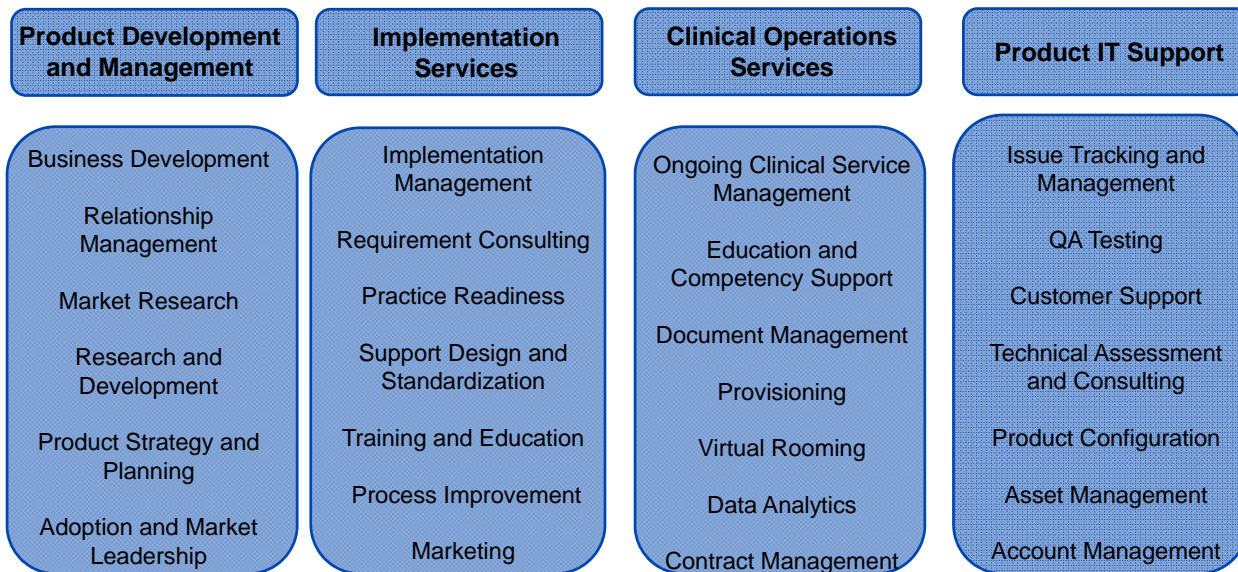
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Clinical Practice Management and Oversight

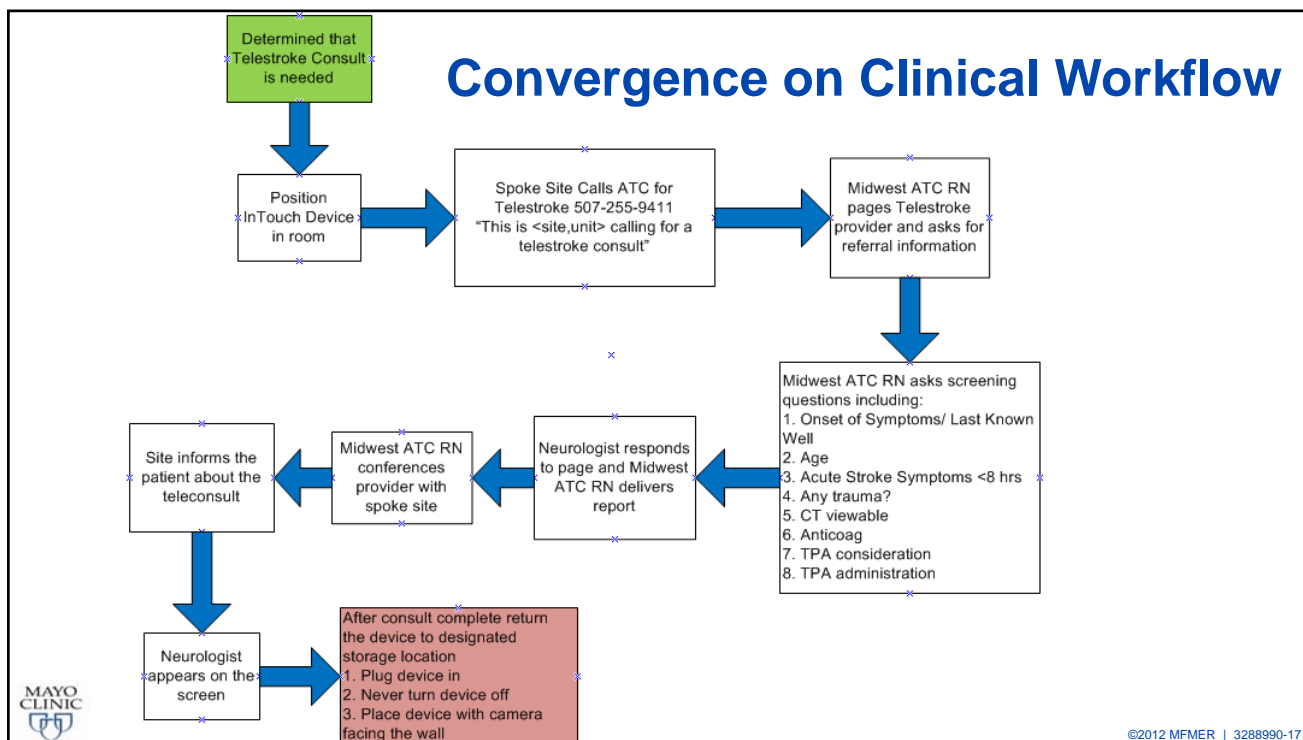


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Connected Care Management and Oversight

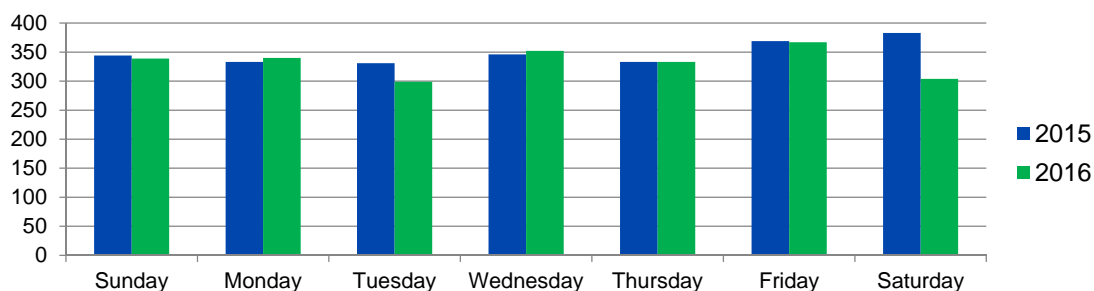


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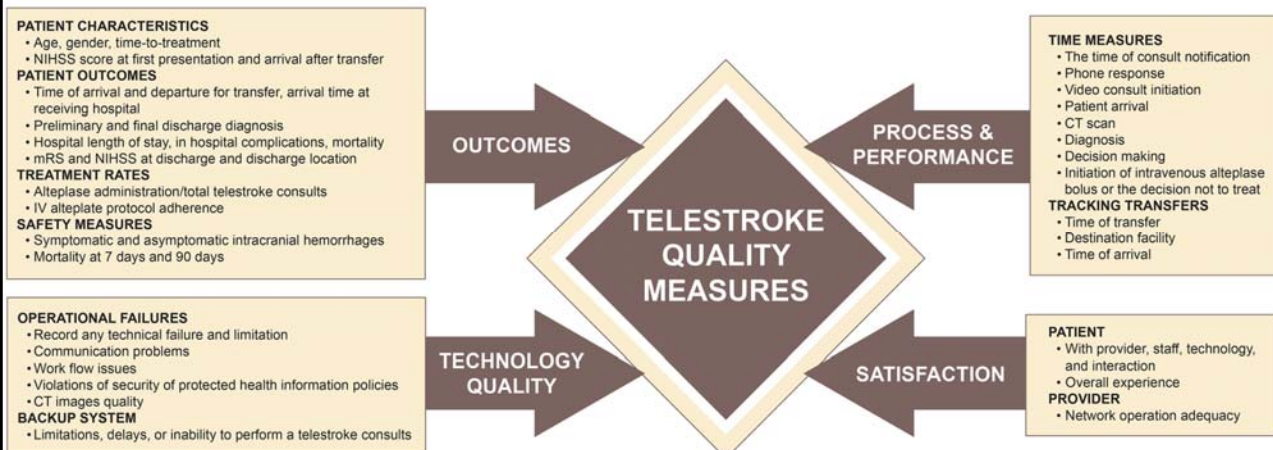


Centralization of Physician Staffing and Scheduling

Telestroke Activations By Day of the Week			
Total Sites	2015	2016	% of Annual
Sunday	344	339	14.3%
Monday	333	340	14.1%
Tuesday	331	299	13.2%
Wednesday	346	352	14.6%
Thursday	333	333	14.0%
Friday	369	367	15.4%
Saturday	383	304	14.4%
Total	2,439	2,334	



Convergence on Quality Measures



Dumitrascu O, Demaerschalk B, Telestroke, Current Cardiology Reports 2017



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Conclusion

Progressing from Service Line to Enterprise has required convergence and centralization of technology, people, operations, governance, and evaluative strategies



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