



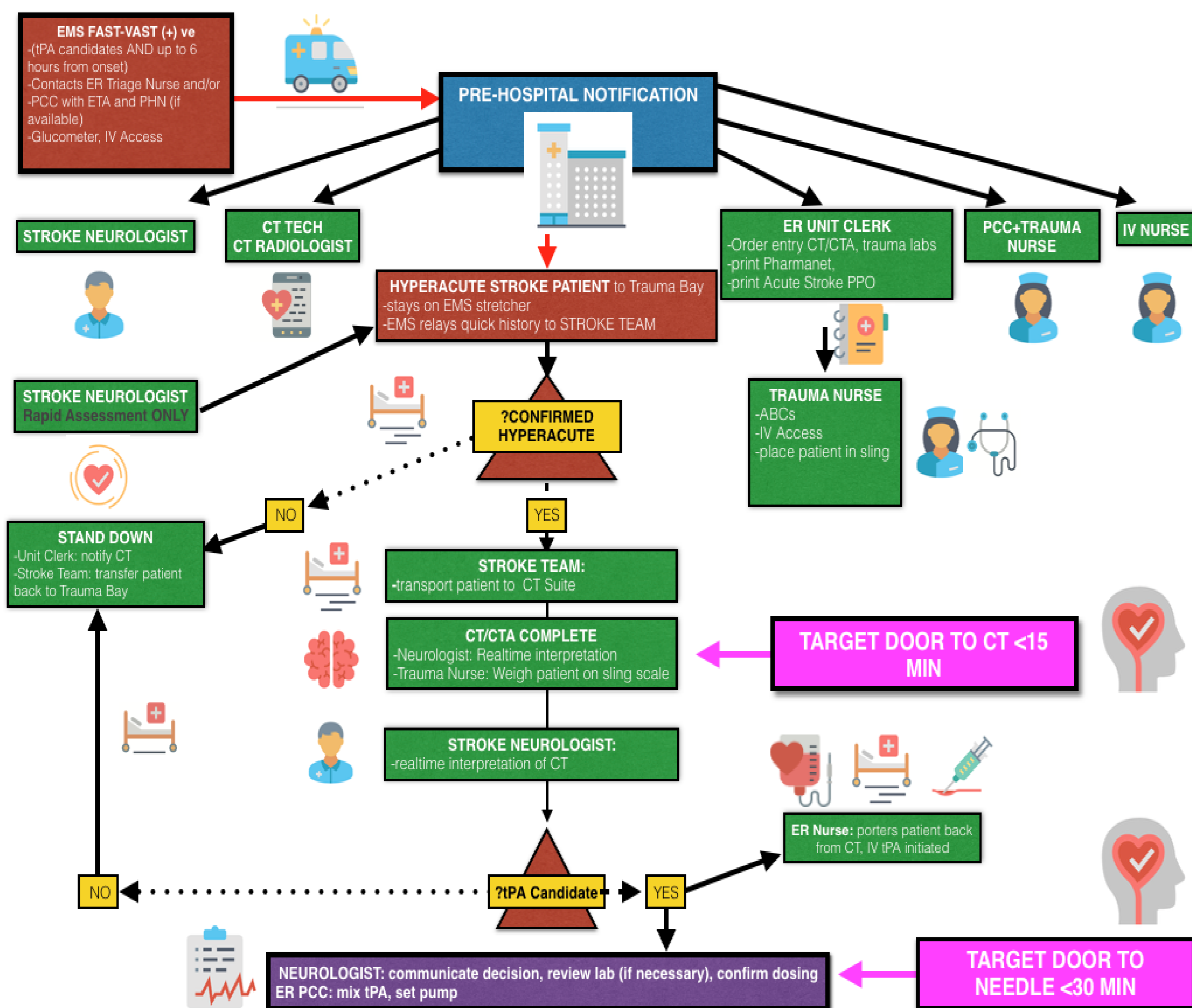
AIM: Achieve a median door-to-needle time (DTN) < 30 minutes for patients with an acute ischemic stroke transported via EMS to ARHCC-ER by May 1 2019.

BACKGROUND

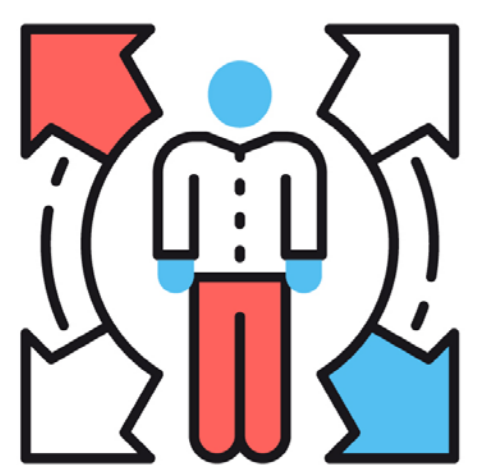


- Small, achievable reductions in stroke thrombolysis delays results in significant health benefits over patients' lifetimes.
- Canadian Stroke Best Practices recommends all eligible patients should receive intravenous alteplase (tPA) **as soon as possible** after hospital arrival and a median DTN of 30 minutes.
- Although these treatment targets are more readily achievable in well-resourced tertiary centres, efforts to reduce DTN at community hospitals have proven difficult thus far.
- **Since 2012 no patient has been treated within this 30 minute target at ARHCC.**

CHANGES MADE



NEXT STEPS



1. **Spread:** plan to engage stakeholders in trialing this revised stroke pathway more widely at ARHCC.
2. **Sustainability:** quarterly data feedback and review including analysis of clinical metrics (LOS, NIHSS at 6 months, modified Rankin scale at 12 months), ongoing championing for faster acute stroke treatment times.
3. **Time:** extend stroke pathway to include door in-door out time for endovascular transfer cases (target <45 min).

Physician Lead: Ryan Punambolam
Champions: Alexis McLellan RN, ER CRN, Jason Sartor MD MSc CCFP, Brittany Hansen ER Unit Clerk, Jake Parmar Paramedic Chief, Rob McGowan Stroke Survivor

RESULTS

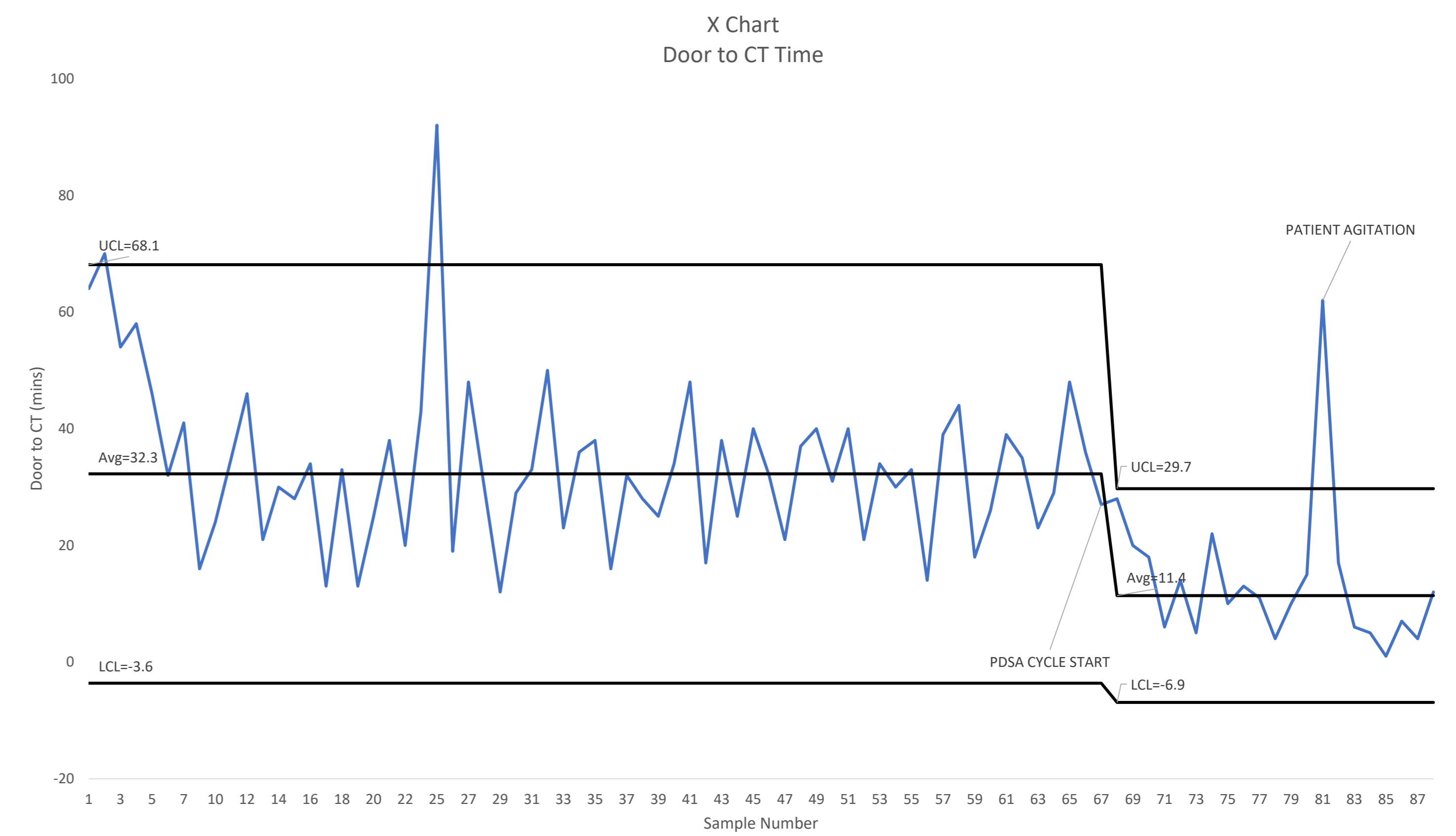


Fig.1 Reduction in door-to-CT (DTCT) time persisting beyond individual PDSA cycles.

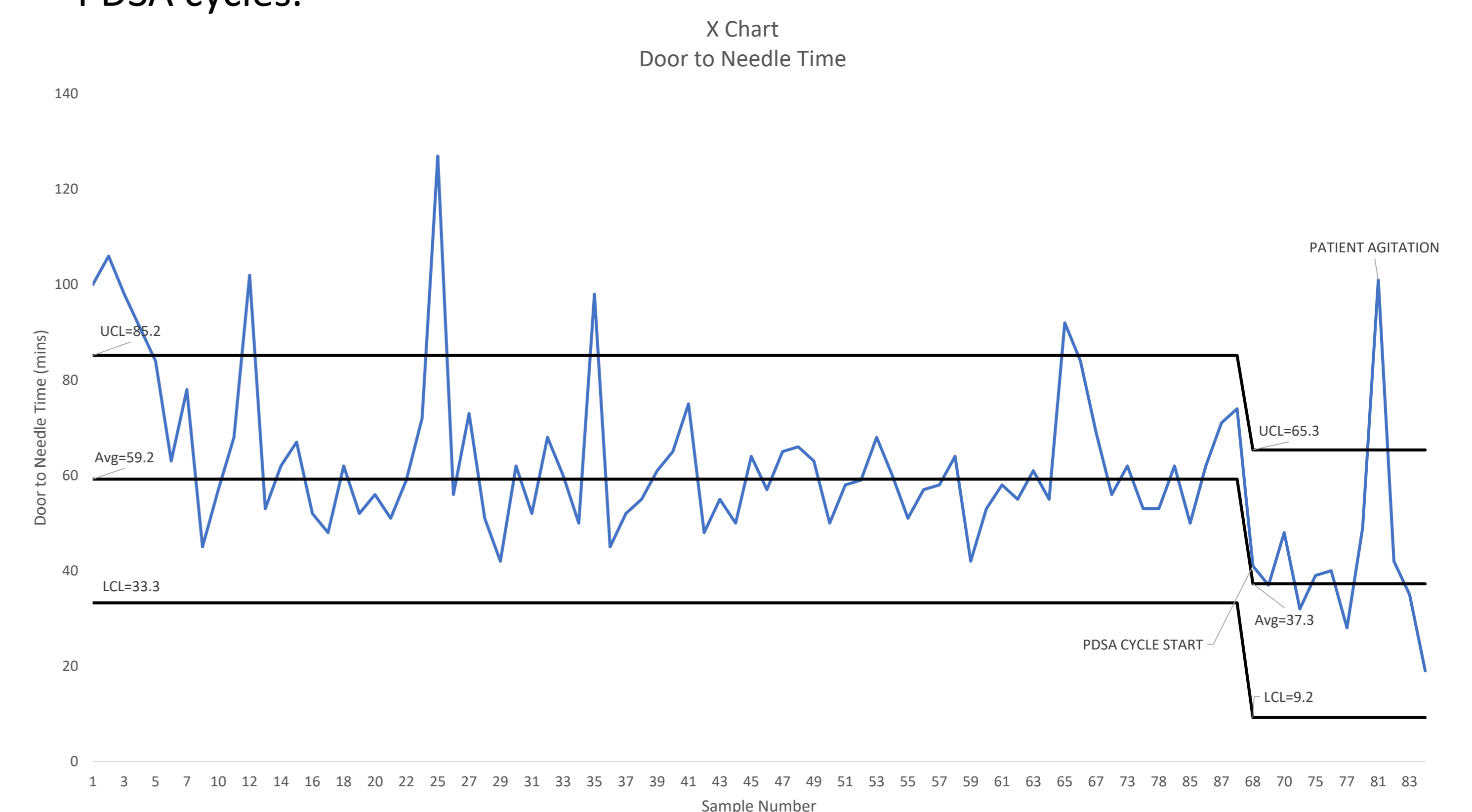


Fig.2 Reduction in DTN for patients treated during PDSA cycle.

LESSONS LEARNED

Coordination of a team-based standardized hyper-acute stroke pathway while employing change concepts lead to substantial reductions in DTCT and DTN times including:



- ✓ performing tasks in parallel
- ✓ minimizing handoffs
- ✓ setting clear time targets

This project supports the notion that community hospitals can substantially reduce DTN times by implementing simple and cost-effective evidence-based QI measures.