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PRACTC: Practice Readiness Academic Clinical Training Collaborative -- Gap Analysis to Advance Clinical Training for Nurse Practitioner Students

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Journal of Patient-Centered Research and Reviews (JPCRR) is a peer-reviewed scientific journal whose mission is to communicate clinical and bench research findings, with the goal of improving the quality of human health, the care of the individual patient, and the care of populations.



consecutive patients (mean age 67 ± 14.15 years, 50.72% women) with ALI (Rutherford category IIb) who underwent CDT only (57.9%) or CDT plus bailout Angiojet mechanical thrombectomy (36.78%) at Aurora St. Luke's Medical Center from January 2004 to October 2014. Data were collected from electronic medical records, procedures reports, laboratory data and billing codes. Continuous variables were expressed as means \pm standard deviation and range; categorical variables were expressed as frequency count and percentage.

Results: Sites of target vessel for CDT were native vessel arterial thrombosis (68.11%) and vascular bypass graft thrombosis (27.5%). Reestablishment of blood flow and clinical success was achieved in 75.4% of patients, while limb salvage at 30 days was achieved in 87.1%. Amputation at 30 days occurred in 12.9%. Surgical embolectomy was required in 15.9%, and lower extremity bypass surgery was required in 8.7%. Time to lysis was 26.12 ± 18.6 hours. Bleeding complications that required blood transfusion occurred in 21% and hemorrhagic stroke in 1.44%.

Conclusion: Catheter-directed thrombolysis for acute limb ischemia with symptoms less than 14 days (Rutherford category IIb) in native artery or bypass graft thrombosis has high immediate clinical success rate and very high limb salvage rate at 30 days. CDT is a reasonable minimally invasive alternative option to emergent surgical revascularization.

PRACTC: Practice Readiness Academic Clinical Training Collaborative — Gap Analysis to Advance Clinical Training for Nurse Practitioner Students

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Background: Multiple factors have created a perfect storm of health care provider shortages in the United States. Advanced practice registered nurses (APRNs), long established as high-quality, cost-effective health care providers, are meeting health care needs across the nation in a variety of settings, and in Wisconsin will be needed to augment the primary care workforce. With 5.7% of its registered nurses credentialed as APRNs, Wisconsin lags behind the national average of 8.7%. However, current capacity to educate this workforce is strained, requiring innovative data-driven clinical education models.

Purpose: To identify gaps in the current clinical educational framework for nurse practitioner (NP) students within the integrated health system.

Methods: Multiple data sources were used including NP core learning goals achievement, current continuum education/training experience models, health care system

stakeholders' perspectives, and advanced practice provider hiring targets for 2015. NP-partnering universities' curricula and experiences of placing students within the integrated health system were reviewed. Analysis was conducted by an interprofessional team to identify gaps.

Results: Four gaps were identified: 1) structured learning and assessments focused on value-based care models (e.g. population, chronic disease) and tracking competency-based milestone achievement; 2) streamlined NP student placement system and onboarding through centralized one-stop infrastructure; 3) interdisciplinary education to emulate the workplace in which practice-ready graduates will be placed; and 4) number of preceptors with skills and knowledge regarding NP educational curriculum and competencies.

Conclusion: Systematic gap analysis will guide NP student placement and education at large Midwestern integrated health system. A structured clinical academic partnership with local university NP programs (PRACTC) that addresses preclinical preparedness, a structured student placement process, coordinated clinical experiences, preceptor development strategies and a diversity strategy provides a mechanism for accomplishing these goals.

β -Thujaplicin: A Soil Antifungal

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Background: β -thujaplicin (β -Th), also known as hinokitiol, naturally occurs in cedar mulch, is found in personal care products and has in vitro antitumor activities. It is antibacterial and antifungal, but has not been tested on soil. *Scedosporium apiospermum* (Sc) is an emerging "extremophile" fungal pathogen found in built outdoor environments.

Purpose: Pilot β -Th as "natural" soil antimicrobial or for isolation of extremophiles, and to explore β -Th resistance as selective advantage to Sc in mulched landscape.

Methods: A variety of outdoor and indoor environments were used for 2 sets of 24 paired soil samples. Soil/H₂O slurry (0.1 ml) was spread on Sabouraud dextrose agar with titrated β -Th levels of 0, 25, 250 and 500 mg/L at 20° C. Fungal and bacterial growth was semiquantitated with 4-point Likert scale. Wilcoxon signed rank test was used for comparison. A local soil Sc isolate was tested on each β -Th concentration.

Results: There was no significant inhibition of total bacterial growth at β -Th 250 mg/L (mean 1.7/4) or 500 mg/L (mean 1.7) compared to plain Sabouraud dextrose agar (mean 1.6). Purple bacteria seemed to be selected for by β -Th. Fungal inhibition was essentially complete, similar, and significantly different from no β -Th (mean 3.4/4) at levels of 250 (mean 0.1) and 500 mg/L (mean 0.0). There was no significant fungal inhibition at 25 mg/L (mean 3.2, second set samples). Similarly, Sc was completely inhibited at 250 and 500 mg/L, but not inhibited at 25 mg/L.

Conclusion: In vitro, β -thujaplicin profoundly, but