Community Paramedics: Here, There, (and soon) Everywhere

Milbank Memorial Fund

REFORMING STATES GROUP

COMMUNITY HEALTH WORKERS AND COMMUNITY PARAMEDICINE: THE STATE OF THE EVIDENCE AND EMERGING PRACTICES

Scottsdale, AZ • November 20, 2014

Gary Wingrove, The Paramedic Foundation

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Acknowledgment

- Davis Patterson, PhD
- Bill Raynovich, EdD

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IRCP 2014

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Special Recognition for Nevada

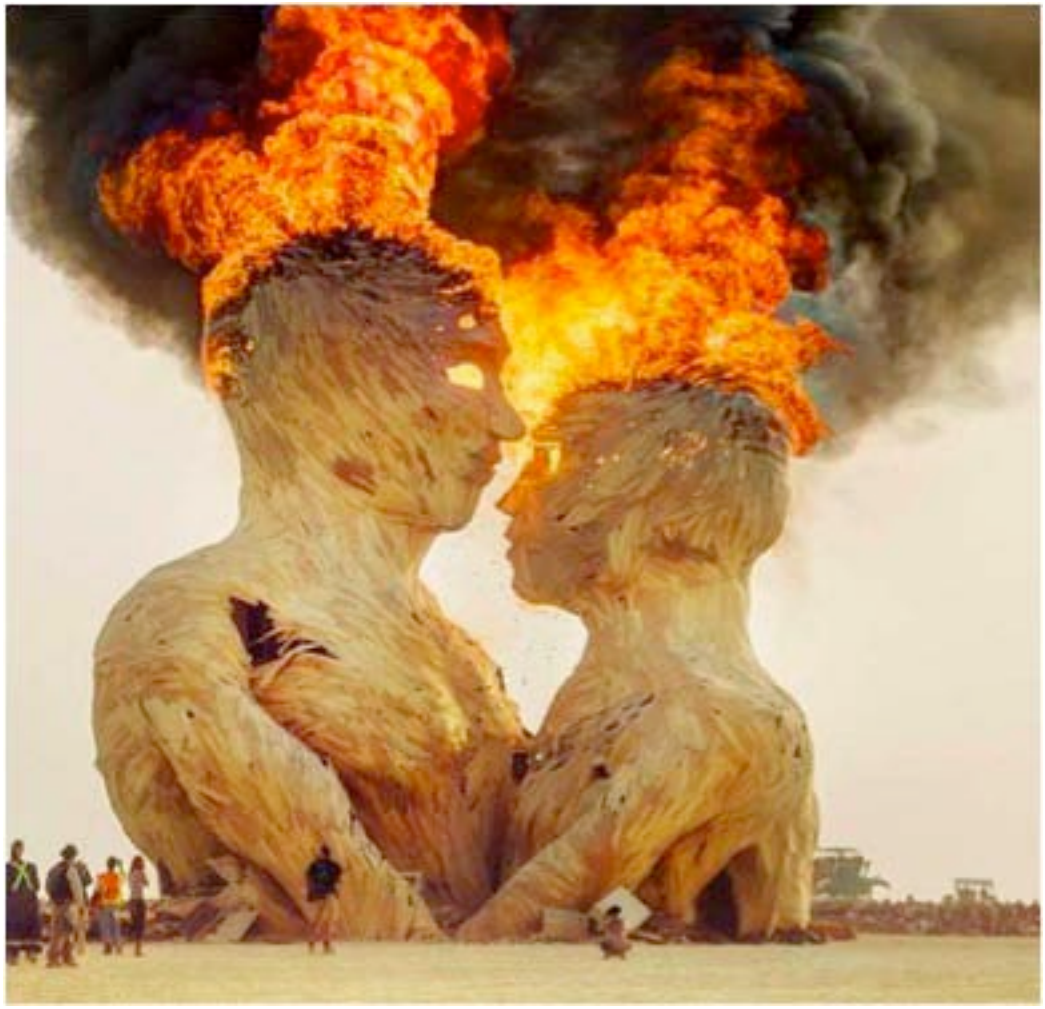

Photo via Twitter - @Jaguargetaway

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2014

- 208 Delegates
- 7 Countries
  - Australia
  - Canada
  - England
  - Ireland
  - Norway
  - United Arab Emirates
  - United States

IRCP 2015

- Hosted by the Council of Ambulance Authorities of Australasia (Australia, New Zealand, New Guinea)
- Week of October 11, 2015
- Melbourne, Victoria, Australia

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10 Years of International Collaboration

Our Governments Are Investing

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Our Governments Are Investing

- 2012
  - United States - $13,500,000 Innovation Awards for CP Programs
- 2013
  - Australia – $4,000,000 CP Workforce Grants
- 2014
  - United States – $29,200,000 Innovation Awards for CP Programs
  - Ontario – $6,000,000 Expansion of CP Programs
  - Minnesota – $800,000 to one program for Shared Savings From Medicaid ACO

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What's In A Name?

- Community Paramedicine
  - Most people "get it" with little explanation
  - Largely rural
  - Clinically integrated primary care teams
  - Community Paramedic is a specific practitioner
    - College course – v4 late 2015, international exam coming 3Q2015
- Mobile Integrated Healthcare
  - Requires explanation
  - Largely urban
  - Some of the providers are mobile
  - Mostly administrative pathways
  - Variety of practitioners

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Paramedic Service Implications

- MIH – give a lot of staff a little training, be prepared for all 9-1-1 calls
- CP – give a few staff a lot of education, integrate into primary care

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The Models – CP

- Primary Healthcare
- Substitution
- Community Coordination

Blacker, N., Pearson, L., & Walker, T. (2009). Redesigning paramedic models of care to meet rural and remote community needs. *The 10th National Rural Health Conference*, Cairns, Australia, May 17-20, 2009. (Accessed via http://10thnrhc.ruralhealth.org.au/papers/docs/Blacker_Natalie_D4.pdf on November 30, 2011).

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CP Example

- Minneapolis – ACO
  - Primary Care team Community Paramedic immersion
  - In home assessments, medication verification
  - Lab tests, scheduled treatments
  - Consultation with Primary Care Provider
  - Implements altered care plan
  - Schedules ancillary services
  - Integrated IT system

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The Models - MIH

- Administrative integration
  - Referral pathways
  - 9-1-1 nurse phone triage, referral
  - Transport to “alternative destinations”
  - Assessment with reporting findings to PCP
  - May include CP (NP, PA, CHW) component

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MIH Example

- Reno – Blended Program (CMMI funded)
  - Create new care and referral pathways (MIH)
    - Administrative integration
  - Post-discharge in-home follow-up care (CP)
    - Primary care integrated, Reduce readmissions
  - Nurse Health Line (MIH)
    - Administrative referral
  - Community Health Paramedics transition of care (CP)
    - Care plan education and follow up
  - Ambulance Transport Alternatives (MIH)
    - Administrative transportation destination pathway

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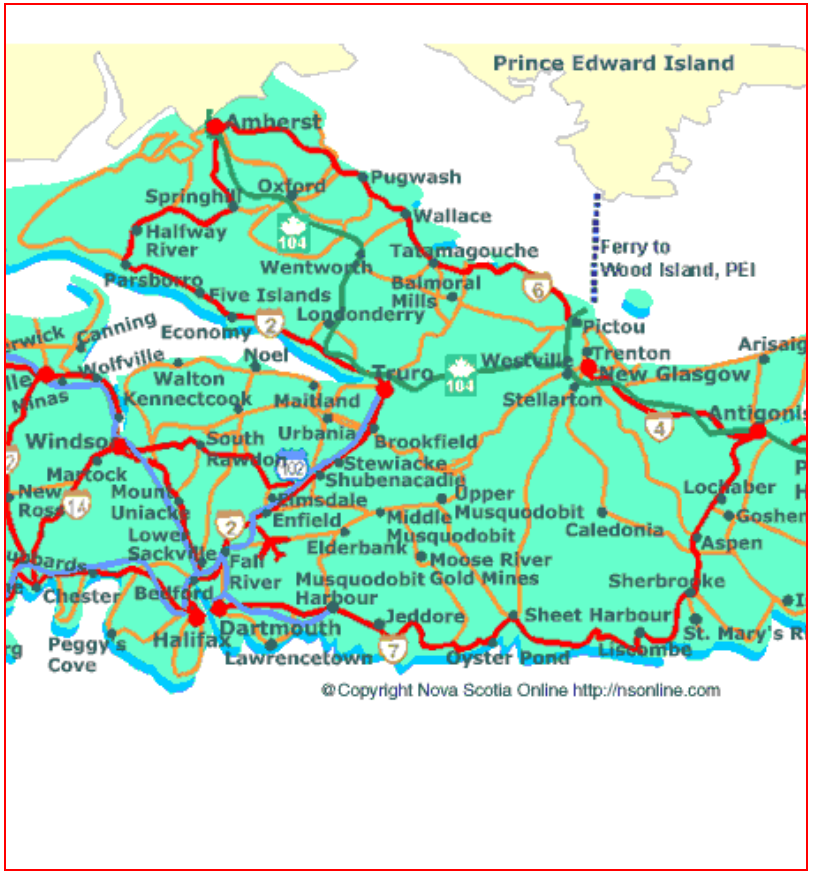
CP Innovation - Province of Nova Scotia

- Primary Healthcare: Long and Brier Islands (NP/CP)
- Substitution: Collaborative Emergency Centres (RN/CP)
- Community Coordination: Nursing Home Care (CP)



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Province of Nova Scotia: Results

- Primary Care:
  - Reduction of doctor visits by 28% and reduction in trips to the emergency department by 40%
- Substitution: Pending (Expanded to 5)
- Community Coordination: Early – 68% (Expanded to 17)
- System: $2,380 to $1,375 (-42%)

How CP Grew Up

- 1990s – New Mexico, North Carolina
- 2005 – IRCP
- Curriculum
  - 2007 v1 (Minnesota – CHW Roots)
  - 2009 v2 (Colorado)
  - 2012 v3 (35 colleges)
  - 2014 – estimate 1,000 CPs nationwide, 400 at HTC alone
  - 2015 v4, Int'l Exam
  - 2015 – IHP Curriculum Pending

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The Evidence

Historical Context

- Community Paramedicine has been in existence continuously since the dawn of civilization
  - Hospitals are relatively new concepts in medicine
  - Wars and military medicine have been leading influences
- Modern Concept of Community Paramedicine
  - Alaska Community Health Practitioner (CHAP) - 1980's
  - New Mexico Taos County Red River Project – 1995-2000
  - Orange County, North Carolina – 1990s
  - International Analogs

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The Primary Challenge

Throughout the world, populations in frontier, rural and urban areas are under-served by their current health care systems.

Frontier areas may have a lack of a physician, a nurse, a pharmacist, or a dentist, or any combination of these, as well as having no physician's assistant, physical therapist, social worker, trained public health professional, or many other health care professionals that resource-rich metropolitan areas have.

"Resource-rich" metropolitan areas often have "distribution" issues; where there are concentrated economically depressed inner city populations that are under-served by the health care professions.

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Secondary Challenges

- Expanding population needs
  - Aging baby-boomers
- Medical economics
  - Projected Medicare Revenues & Expenses Shortfall
    - *Medicare Insolvency Projections, Congressional Research Service, Patricia A. Davis,* Specialist *in Healthcare Financing, July 3, 2013*
    - https://fas.org/sgp/crs/misc/RS20946.pdf

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Secondary Challenges continued

- Hospital Readmissions
  - These are safely and economically avoidable
- Use of Hospital Emergency Departments
  - In Lieu of Family Care
  - In Lieu of ***any other available*** care

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Community Paramedic & Mobile Integrated Health Care

- Community Paramedicine is an awkward title
  - The practitioner may be a paramedic; however, not necessarily
- Mobile Integrated Health Care is an awkward term
  - The practice may not be mobile

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Roles and Definitions

- The Community Paramedic (CP) is a practitioner who “fills” gaps in the health care system. The CP practice is well-regulated, is accountable, has medical supervision, and is systematically integrated into the community health system based on demonstrated need and whose practice is restricted to only filling identified gaps in services.

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Social, Professional and Political Challenges

- Social challenges involve acceptance by the communities – the recipients of care
- Professional challenges involve acceptance by existing paramedics (EMS professionals) practicing in emergency response agencies and transporting agencies
- Political challenges involve acceptance by the medical and nursing communities

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The Evidence

- The body of knowledge is impressive
- Most affirming evidence is at the model systems case-based level, where governmental grants funded demonstration projects establishing feasibility, acceptability, safety, and efficacy.

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The Evidence continued

- Most negative evidence is historical and stale and has been eclipsed by an overwhelming number of successful programs that have gained established status with regulatory grounding, fiscal sustainability, and integrated professional acceptance.

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The Evidence continued

- Professional objections have been raised
  - Level of education
    - EMS has been highly trained to administer interventions that require high levels of skill; however, these interventions are administered in life-threatening settings and when rapid transport to a hospital ED is integrated into the practice
  - Suitability of the emergency responder professionals
    - Affective Skills, Aptitude, Motivation
  - Compromise (Lowering) of the standard of care
    - This is fundamentally true; unless one considers **no care** as being superior to this “lesser care level”

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Perverse Incentives

- Transport bias
  - Our current EMS system favors “transporting patients, even if another response is wanted, needed, safer and less expensive.”
  - 7 – 34% of Medicare patients could (and should) have been treated other than the destination hospital ED
  - 26% of EMS responses result in no transport (and no payment)
  - Most frequent users are often homeless, have no primary care provider, and, often have a chronic, life-threatening or debilitating illness, including mental health illnesses
    - *Realigning reimbursement policy and financial incentives to support patient-centered out-of-hospital care. JAMA, 309(7); 667-668. Munjal & Carr, 2013*

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Perverse Incentives continued

- Affordable Care Act encourages realignment of incentives (toward bundled payments and shared savings) but does not address EMS reimbursement and practice issues
- **Many EMS transports and downstream economic inefficiencies are avoidable**

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Perverse Incentives continued

- Non-acute, chronic, and under-served patients often do not receive the right care in the right place at the right time
  - All of which consequently results in higher overall system costs and stressed resources at all levels

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The Research

Research Reports

- Do Emergency Medical Services Professionals Think They Should Participate in Disease Prevention?
  - *Lerner, Fernandez & Shah; PEC, Jan-Mar 2009, Vol 13, No.1, pps 64-70*
- **87% of EMS Responders support participation in disease and injury prevention programs**
  - Surveyed 27,233 NREMT members

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Research Reports

- Paramedic Determination of Medical Necessity: a Meta-Analysis
  - *L. Brown, M.W. Hubble, D.C. Cone, M.G. Millin, B. Schwartz, P.D. Patterson, B. Greenberg & M. Richards; PEC, Oct/Dec 2009, Vol 13, No. 4, pps. 516-527*
- 9,752 Titles; 214 Abstracts; 61 Studies Reviewed
- 10 papers in the final analysis
- NPV = 0.91
- **Data do not support having paramedics make decisions to not transport**

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Research Reports

- Evaluation of an EMS-Based Social Services Referal Program for Elderly Patients
  - *Kue, Ramstrom, Stacy-Weisberg, Restuccia; PEC, July/Sept 2009, Vol 13, No 3, pps. 273-279*
- 8-months, real time study
- 6,249 no-transport responses
- 721 eligible encounters; 3% total
- 70 referrals of 698 reviews
- **Paramedic referrals resulted in higher acceptance 98% v 28%**

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Research Reports

- Evaluation of an EMS-Based Social Services Referal Program for Elderly Patients
  - *Kue, Ramstrom, Stacy-Weisberg, Restuccia; PEC, July/Sept 2009, Vol 13, No 3, pps. 273-279*
- Paramedic referrals resulted in higher acceptance 98% v 28%
- **Paramedics have the ability to accurately assess both the patient's clinical condition and the environmental context**

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Research Reports

- Evaluation of an EMS-Based Social Services Referal Program for Elderly Patients
  - *Kue, Ramstrom, Stacy-Weisberg, Restuccia; PEC, July/Sept 2009, Vol 13, No 3, pps. 273-279*
- **Partnering agencies is a key component for coordination of care and "defragmenting" services**

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Research Reports

- EMS Insider March 2008
  - David C. Lipscomb (originally in the Washington Times)
- DC Fire Dept began a program to visit the most frequent 911 callers to reduce unnecessary calls
  - 49,000 unnecessary 911 calls each year
- **Started with the 20 most frequent callers - 10% of 127,000 annual calls**
  - Average of each calling 10 called ~ 6,500 times
  - Each called approximately 650 times per year, or twice a day!

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Conclusions

- The development of Community Paramedicine and Mobile Integrated Health Care has been taking place for decades
- The evidence over the past 40+ years has been mixed; some negative
- The preponderance of evidence over the past 10 years has been overwhelmingly positive
- Economic drivers are now impelling the trend toward acceptance
- The trends in professional standards, education and professionalism are compelling the trend

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State Perceived Barriers

NASEMSO CP Member Poll

(1) Have you interpreted your EMS enabling statute as allowing community paramedicine (within your scope of EMS practice for those individuals) to be provided in the State? **Yes: 17 No: 8 No Interpretation: 12**

(2)Have you interpreted your EMS enabling statute as prohibiting community paramedicine (within your scope of practice for those individuals) to be provided in the State? **Yes: 2 No: 24 No Interpretation: 11**

Yes/No (16) + No/No (6) + Yes/X (1) + X/No (2): 25 (Allow/Don't Prohibit)

Yes/No: 2 (Prohibit; CA enabling pilot projects; NY writing enabling leg.)

X/X:10 (No Interpretation)

(3)Has your enabling statute or regulations been amended to enable or prohibit community paramedicine to be practiced in the State? **Yes: 5 No: 32**

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State	Enable?	Prohibit?	Law Change?	Column1
Alabama	No	No	No	
Alaska	X	X	No	Rules May Prohibit
Arizona	X	No	No	Statutory Committees to Assess This fall
Arkansas	X	No	No	Has One "Model" Service
California	No	Yes	No	
Florida	X	X	No	
Idaho	Yes	No	No	As Long as Scope Creep Doen't Occur
Illinois	X	X	No	MIH Planning Going On
Indiana	Yes	No	No	
Kansas	Yes*	X	No	* Paramedics Only
Maine	Yes	No	Yes	Pilot Projects Program
Maryland	Yes	No	No	
Massachusetts	Yes	No	No	Regs. Being Written. Interpretations being reviewed
Michigan	X	X	No	
Minnesota	Yes	No	Yes	Enables CP and Medicaid Reimbursement
Missouri	Yes	No	Yes	Regs. Being Written
Mississippi	X	X	No	
Montana	No	No	No	Interpretations being reviewed
Nebraska	No	No	No	
Nevada	Yes	No	Yes	Allows Non-Emergent Home Visits
New Mexico	Yes	No	No	
New York	No	Yes	No	Working on Statute Changes to Enable
North Carolina	Yes	No	No	Expanding Scope/Seeking Medicaid Reimbursement
North Dakota	Yes	No	No	
Ohio	X	X	No	
Oregon	X	X	No	
Pennsylvania	Yes	No	Yes	Law Change Not Just for CP Enablement
Rhode Island	No	No	No	
South Dakota	X	X	No	
Tennessee	Yes	No	No	Need Rules on Education & Endorsements
Texas	Likely Yes	No	No	Allowed Through Delegated practice
Utah	Yes	No	No	
Virginia	X	X	No	
Washington	No	No	No	
West Virginia	X	X	No	
Wisconsin	No	No	No	
Wyoming	Yes	No	No	Rules Need Amending

Minnesota's Legislation

- Like most states, Minnesota is a "delegated medical practice" state for paramedics
- Scope of practice floor only – delegating physician determines ceiling
- No practice location restrictions
- Step 1 – Define the CP
- Step 2 – Medicaid Reimbursement

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CP: Gap Filler

Figure 3: Primary Care Services to be offered by the Respective Community Paramedic Programs

STATE:	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
PROGRAM:	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SERVICES																
Patient History/Physical Assessment	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Weight Checks-Adult and Pediatric	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
Well Child Checks			X		X				X	X	X				X	
Vital Signs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Blood Pressure Screening	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X
Cholesterol Screening			X		X					X				X		X
Routine Follow-up 12-Lead EKG	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Blood Glucose Checks	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X
Pulse Ox Monitoring	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Set Up CPAP	X	X	X	X	X		X	X	X	X	X		X	X	X	X
Ultrasound			X					X		X						
Lab Specimen Collection	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
Lab Specimen Testing (Inc. I-STAT)		X			X			X		X	X	X	X	X		X
Neurological Assessment	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X
Post Stroke Assessment	X	X	X		X	X	X	X	X		X	X		X	X	X
Ophthalmoscope		X	X				X			X	X			X		X
Chronic Disease Management (heart disease, asthma, COPD, diabetes)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Managing Surgical Drains								X					X	X		X
Managing Tracheostomies											X			X		X
Managing Catheters											X	X		X		X
Managing PICC lines											X			X		X
Peripheral Intravenous Lines	X	X	X	X	X	X	X	X	X		X	X		X	X	X
IV Catheter Changes	X	X	X	X	X	X	X	X	X	X	X	X			X	X
Antibiotic Infusions			X		X					X	X	X		X	X	X
Suture Removal			X		X					X	X		X	X	X	X
Treatment of Minor Injuries	X		X			X		X	X			X	X	X	X	X
Post Partum Home Visits		X			X	X	X	X	X						X	
Infusion Therapies			X								X	X		X		X
Wound Care		X	X	X	X	X	X	X	X	X	X	X	X	X		X
Wound Vacuum			X			X				X			X			X
Medication Monitoring/Reconciliation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Immunizations		X	X	X	X	X	X	X	X	X	X	X		X	X	X
Fluoride Varnish for Children		X	X													
In-Home Lifestyle/Safety Evaluation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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Where We're Headed

- International Registry of CP and MIH Programs
- International Registry of CPs and IHPs
- CP and IHP CE online and time zone conferences

iCPRnet

International community paramedic research network

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Questions?