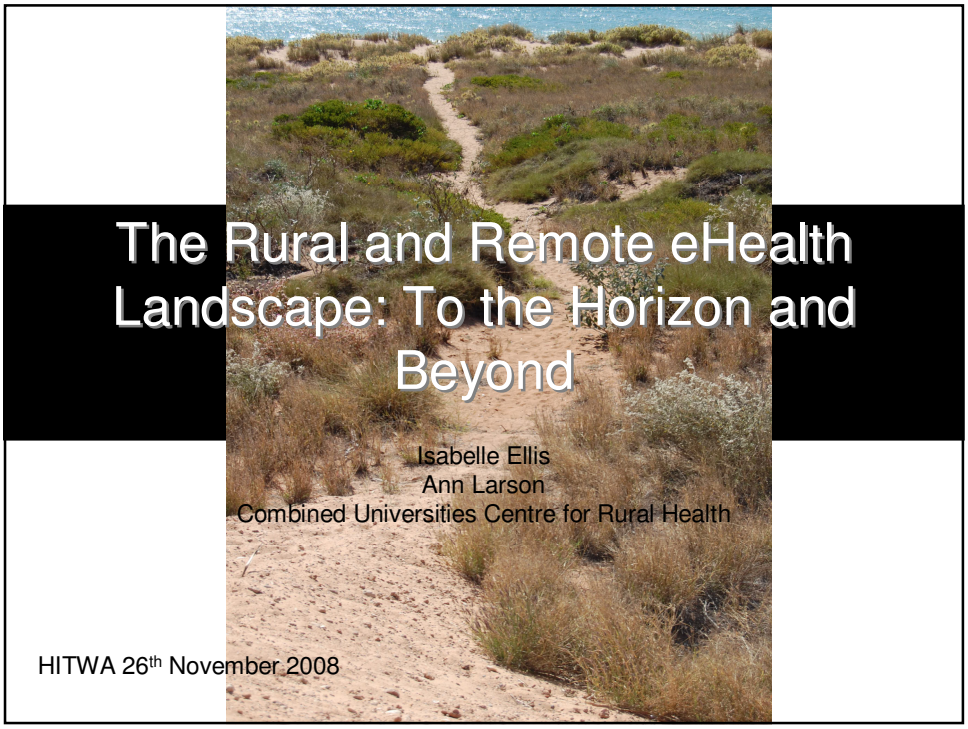

The Rural and Remote eHealth Landscape: To the Horizon and Beyond
Isabelle Ellis
Ann Larson
Combined Universities Centre for Rural Health
HITWA 26th November 2008

Kimberley Wound Care Study

Results

Base-line healing rates

Intervention	Control	t	p
+6.82 %	-4.90%	2.57	0.012

Regression	Beta	t	p
Group	-.310	-2.54	0.013
Age	.018	.142	0.888
Sex	-.202	-1.73	0.080

Conclusions

Remote expert consultation is associated with positive base-line healing rates in chronic wounds

Remote wound consultation using AMWIS is:

- Quick and easy for clinicians
- Well accepted by patients
- Inexpensive compared to transporting patient

Patient adherence with wound management is critical to positive outcome

Need to increase the availability of pressure off-loading devices in the Kimberley region

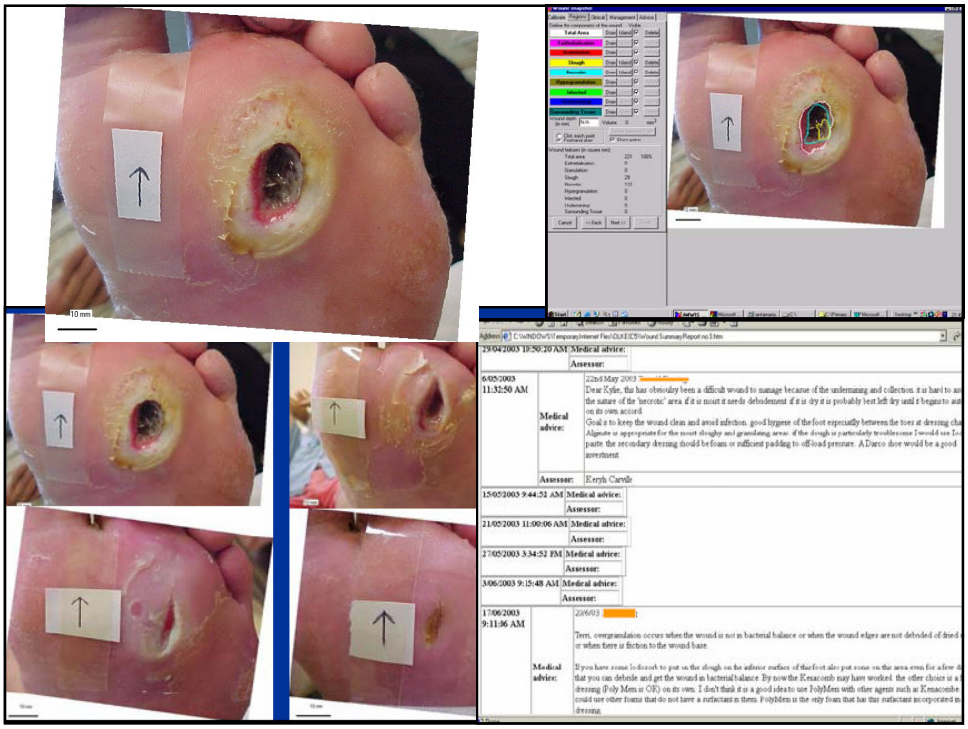
Results

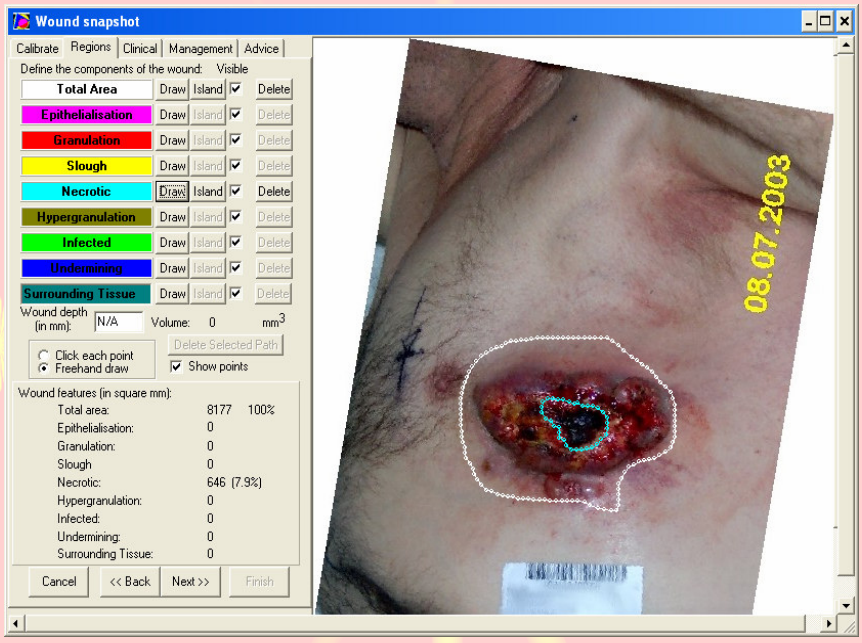
Treatment cost comparison

Cost item	Intervention	Control
Treatment	$508,058	$577,339
Amputations	0	$111,360 (6)
Transport	0	$36,000
Consultations	$16,800	0
Total	$524,858	$724,696

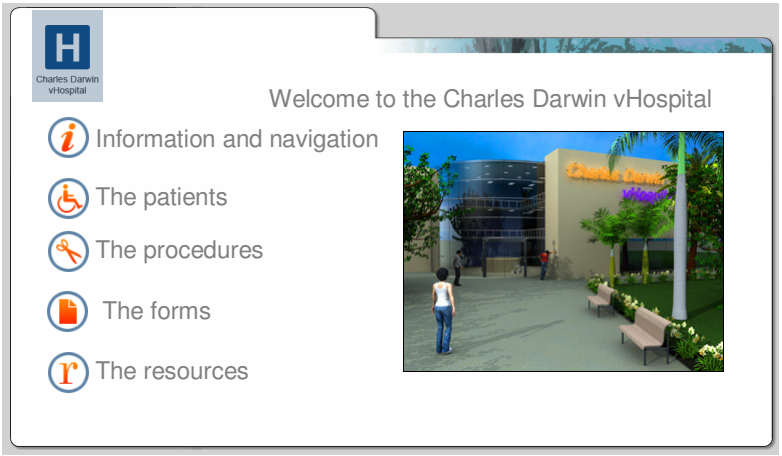
Intervention group cost $199,838 less than controls

Santamaria N., Carville K., **Ellis I**., Prentice J. (2004)
"The effectiveness of digital imaging and remote expert wound consultation on healing rates in chronic lower leg ulcers in the Kimberley region of Western Australia". Primary Intention Vol 12. No 2. pp. 62-70





Charles Darwin University Virtual Hospital for teaching telehhealth wound care to undergraduate Nurses



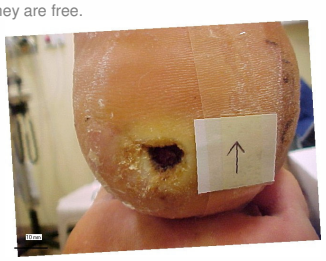
Story: Emergency Department: Med/Surg Day1 am: Day 1 pm: Day 4: Discharge

John Wayne: Day 1 am

During the morning shift, Robert, the nurse caring for John,
has called the Wound Care Nurse Consultant
and the Diabetes Nurse Educator and asks them to visit John when they are free.
Robert will assess John's foot and his wound.

Now **Fluffy** watch the procedure to assess John's foot

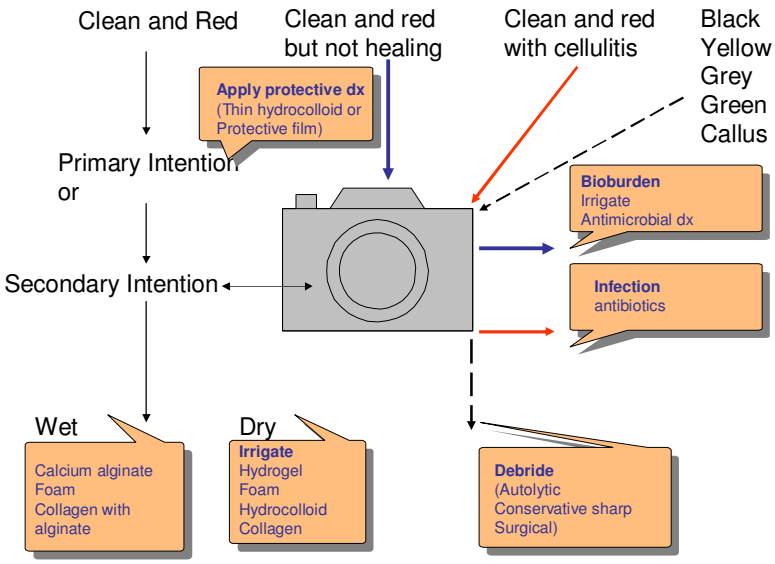
Video clip

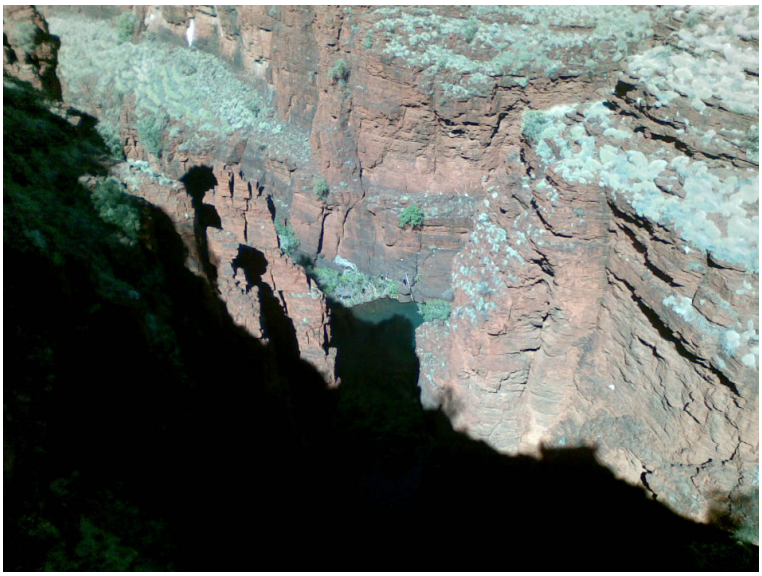


Notice how Robert checks the pulses and uses the monofilament to assess for the degree of peripheral neuropathy

Now **Fluffy** on the interactive image draw the wound edges.
This drawing will be used to calculate the area of the wound in mm2

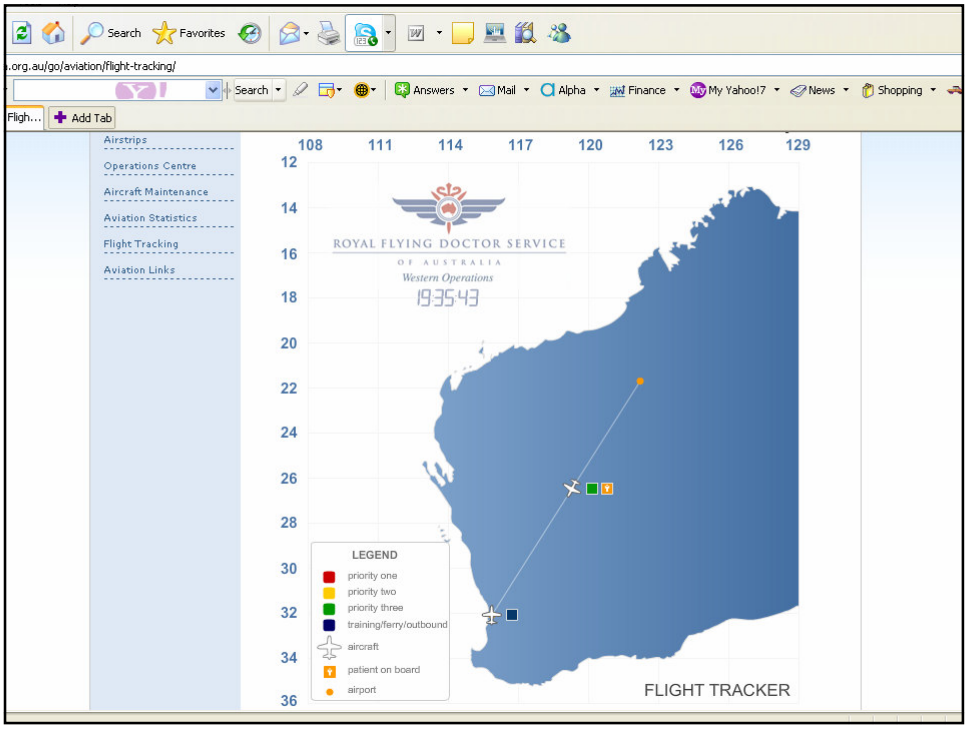
Wound assessment and care algorithm





ROYAL FLYING DOCTOR SERVICE OF AUSTRALIA
Western Operations

- **Activity 2006/2007**
- Kilometres Flown by RFDS Aircraft 5,138,231
- Hours Flown 16,674
- Patients transferred 6,238
- Clinics conducted 1,633
- Kilometres flown by Charter aircraft 453,573
- Telehealth (telephone/radio) calls 24,073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News
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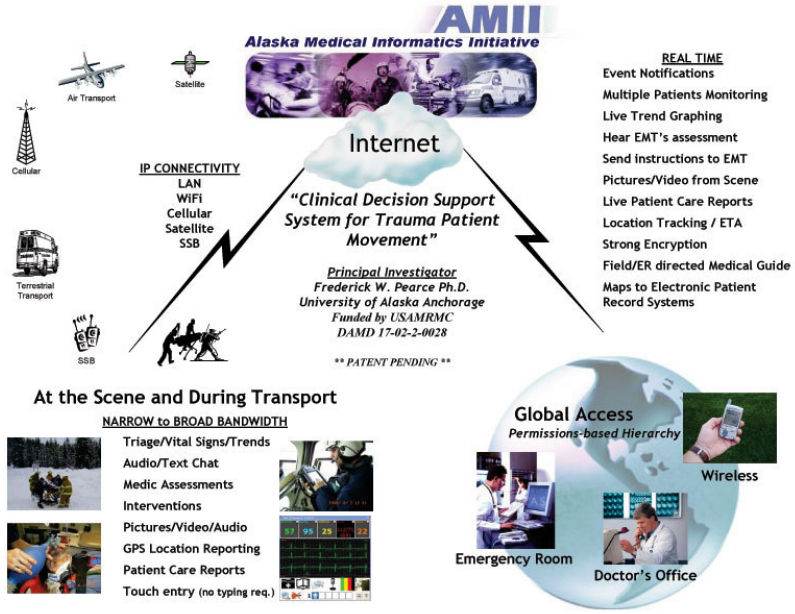
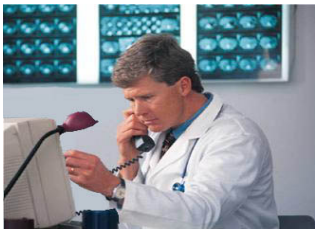
Airstrips
Operations Centre
Aircraft Maintenance
Aviation Statistics
Flight Tracking
Aviation Links
108 111 114 117 120 123 126 129
12 14 16 18 20 22 24 26 28 30 32 34 36
ROYAL FLYING DOCTOR SERVICE
OF AUSTRALIA
Western Operations
1935 43
LEGEND
priority one
priority two
priority three
training/ferry/outbound
aircraft
patient on board
airport
FLIGHT TRACKER


SWAGS
First Aid
Pilbara
and Coral Coast

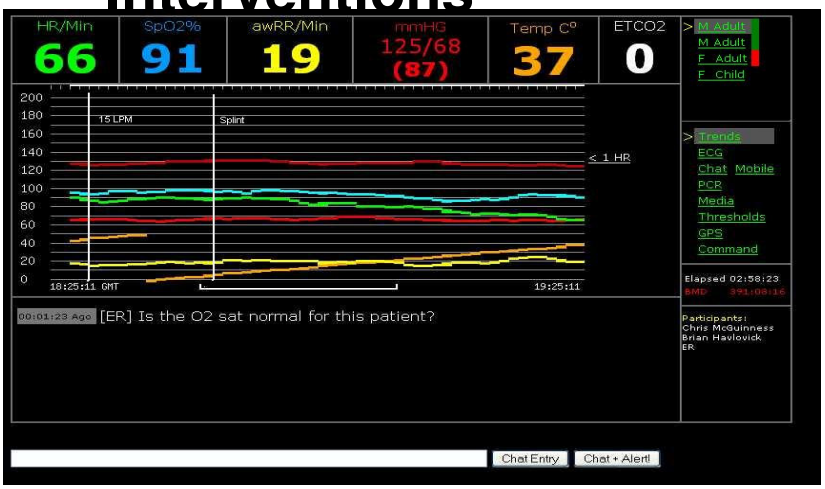


Courtesy Prof. Fred Pearce University of Alaska Anchorage 2008

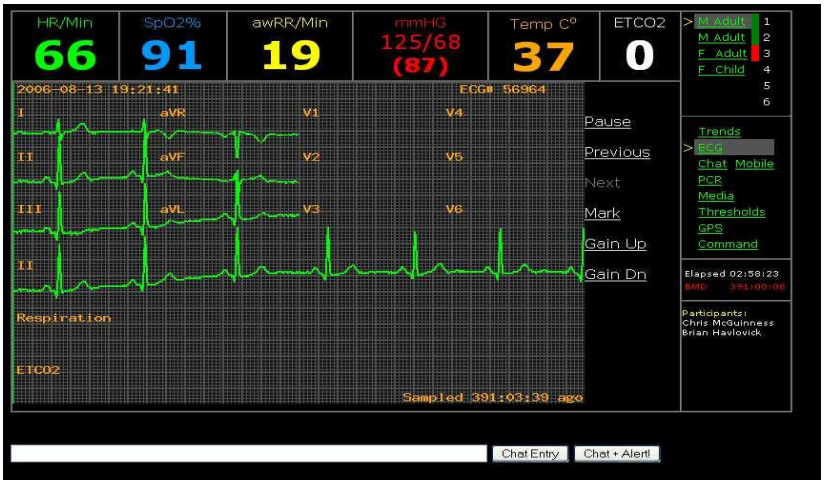
ER Communications



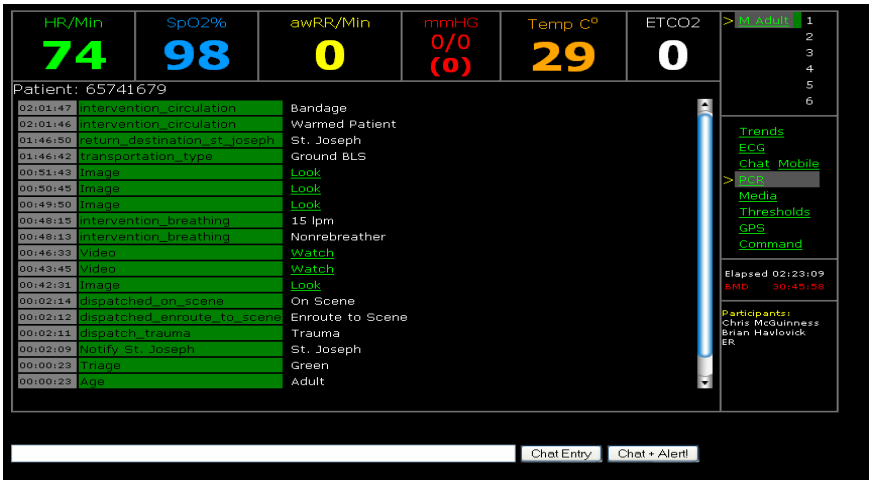
ER – Trends & Interventions



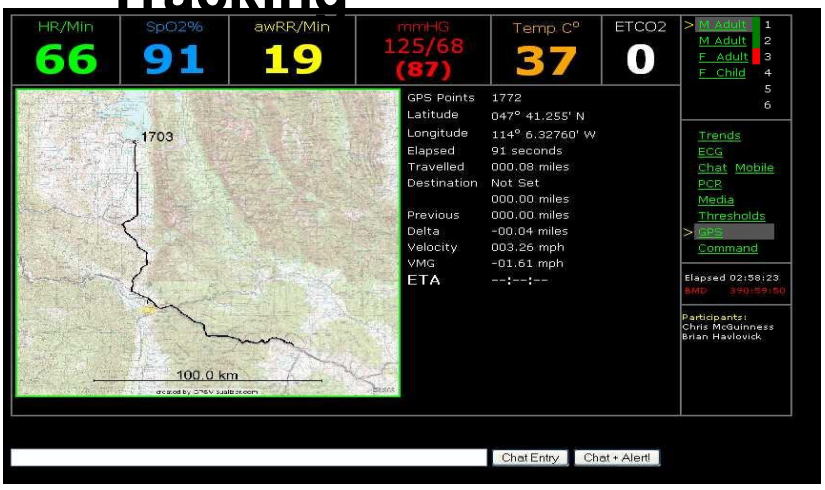
ER – 12 Lead ECG Display



ER – Patient Care Report

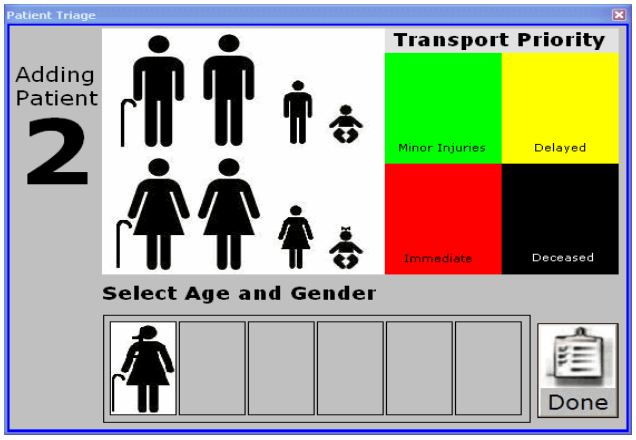


ER/ETA & Location Tracking

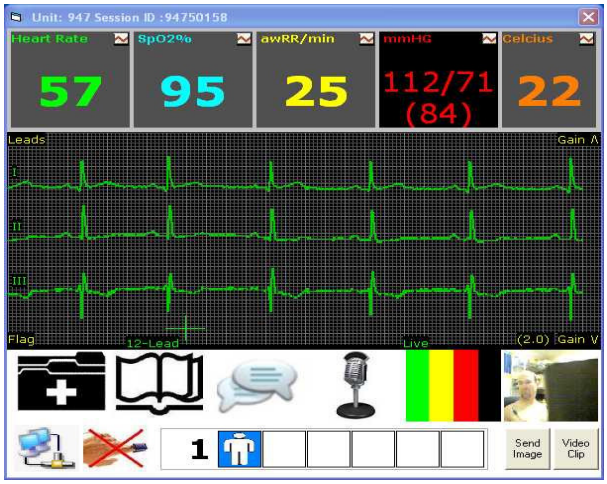


AMII Field Unit

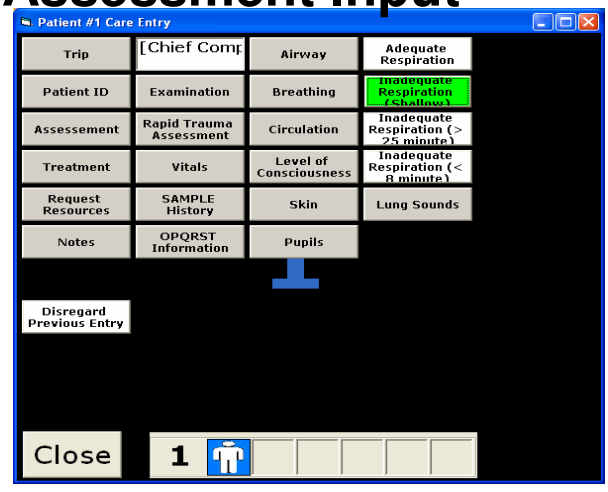
Field Unit – Triage



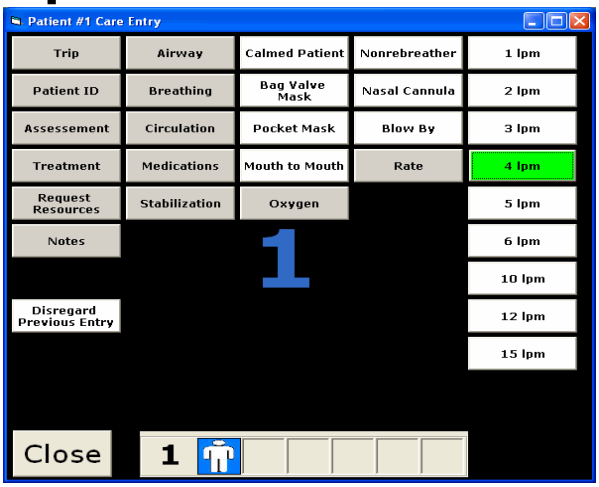
Field Unit - Patient Monitor



Field Unit - Patient Assessment Input



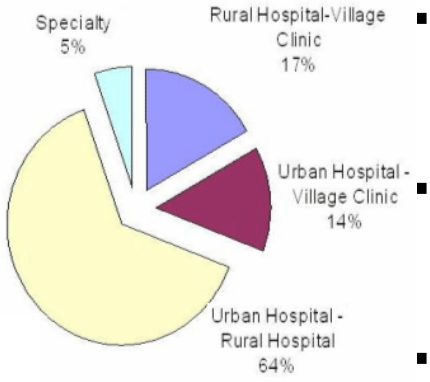
Field Unit – Intervention Input



AMII Baseline Data

- 2,795 observations.
- Includes medical transport cases with adequate data for over a 12 month period for all major Alaska medevac carriers.
- Extensive data on transportation routes, latency, symptoms, diagnoses and medical communication prior to and during transport.
- Data extracted and recoded by trained medical records technicians.

Medical Transports by Level of Care



- All transports were categorized by the level of intensity of medical service.
- Almost 2/3 of transports were from a rural to an urban hospital.
- Over 30% transported patients from village clinics.