



You Know it's Bad When... Stories from Amish Country

Presented by:

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Ask the experts

"There are so many ways to live and be Amish or Mennonite, even in a close area. I learn a lot from my patients, just being with them on transfers."

- Raised Amish, now "Englisch"
and a NYS paramedic

CASE STUDY

"Requesting Mercy Flight for an 18 y/o man found unresponsive in a field, in a pool of blood."

- Local fire chief to 911



Ground medic report

"We think this guy was thrown from a plow then dragged by the horses pulling the plow. The injury on the back of his head looks like the plow was actually impaled in his skull, but nobody saw it happen. He was out cold when we got there, but now he's coming to."

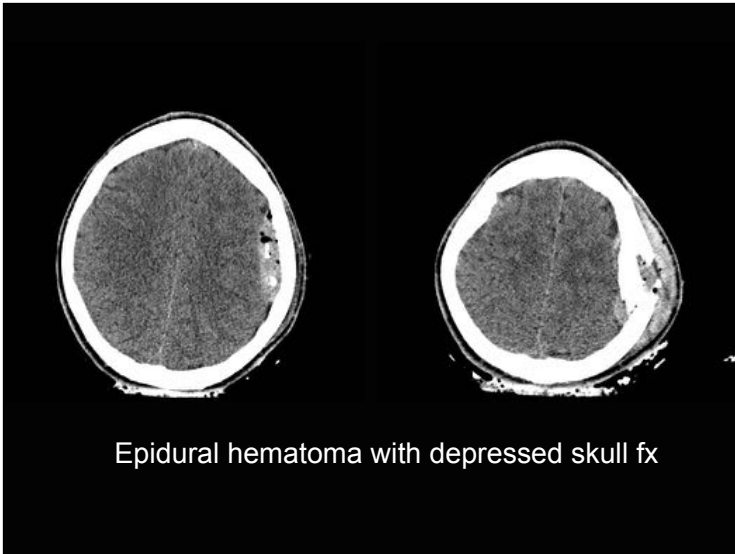


Assessment

- MFC: "What hurts?"
- Him: "Oh... I've got a little bit of a headache."
- V/S- RR: 20
Pulse: 88 R
BP: 124/86
GCS: 4/4/6 =14
SPO2: 100%

Treatment & transport

- BLS and ALS work-up
- Anti-emetic
- Analgesia
- Antibiotics
- Transport by helicopter to a trauma center



2-days post injury

- A&Ox3
- Slight speech deficit noted
- Otherwise neurologically intact with neck brace for C6 fx
- On multiple IV antibiotics (why?)

What did this teach us?

- General composure of pt and community
- General health/fitness of pt
- Vibrant work ethic
- High pain tolerance

Learning objectives

- Why is this an important topic?
- Brief history & cultural overview of “Old Order” communities
- Implications for EMS
- Outreach ideas

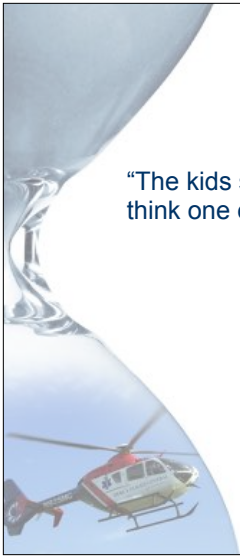


Who are the “Old Order”?

- Amish (most strict), some Mennonites & others
 - “Plain people”
 - Simplicity
 - Christian (join Church as an adult)
 - Separateness
 - Community interdependence = Good
- Fastest growing populations in the world
 - 85% of Amish children remain Amish

What makes them “Old Order”?

- Two guiding concepts:
 1. Reject *Hochmut* (pride, haughtiness, arrogance)
 2. Embrace *Demut* (humility) & *Gelassenheit* (Calmness, composure, placidity, “letting-be,” submission to the will of Jesus, a quiet spirit)
- *Ordnung* (order) = Rules for clothing, vehicles, use of technology, etc.
 - Church & Elders: authority and discipline
 - Violations lead to consequences to encourage conformity or cut ties (Amish = shun; Mennonite = find other conference)

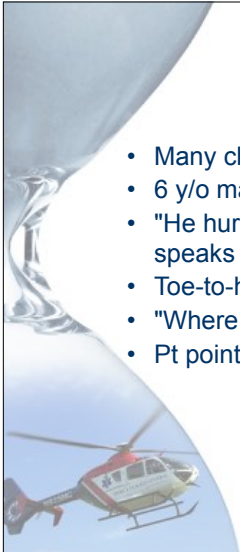


CASE STUDY

"The kids stopped jumping on the trampoline. I think one of them might be hurt."

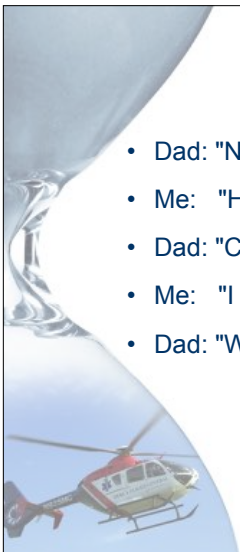
- At an Amish house-raising with a gas-powered sawmill on site





Assessment


- Many children on the trampoline, none moving
- 6 y/o male, awake and calm, lying in the middle
- "He hurt his knee," says an older boy who speaks English
- Toe-to-head assessment = no pain to feet/knees
- "Where does it hurt?" (Translated to child)
- Pt points to his mid femur



Consent

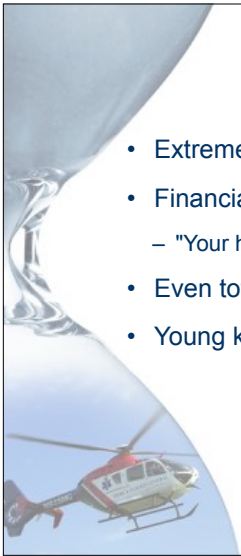
- Dad: "No ambulance, you take care of him"
- Me: "He needs a traction splint"
- Dad: "Can you make one?"
- Me: "I can try" (thanks, Wilderness EMT)
- Dad: "We'll find or make what you need"

And they did...

An hourglass with silver sand falling from the top bulb to the bottom bulb. In the bottom bulb, a red and white helicopter is flying against a blue sky.

Treatment & transport

- Homemade traction splint
 - See how on YouTube: "Improvvised traction splint"
- Cut-to-size backboard
- Tylenol and a swig of water
- Transported in the back of a van to the local hospital

An hourglass with silver sand falling from the top bulb to the bottom bulb. In the bottom bulb, a red and white helicopter is flying against a blue sky.

What did this teach us?

- Extreme resourcefulness
- Financially shrewd
 - "Your health insurance industry is quite a racket."
- Even tots are tough
- Young kids might not speak English

An hourglass with silver sand falling from the top bulb to the bottom bulb. In the bottom bulb, a red and white helicopter is flying against a blue sky.

Cultural considerations

- Family/community hierarchy
- Language (German/Swiss/PA Dutch)
- Farm culture
- Children work, seem very mature/independent
- Gender roles
- Acceptance in "the will of God"

CASE STUDY

"The sun was in my eyes when I came around the curve. I didn't even see them!"

- Uninjured driver of car travelling 65 mph when it rear-ended a buggy

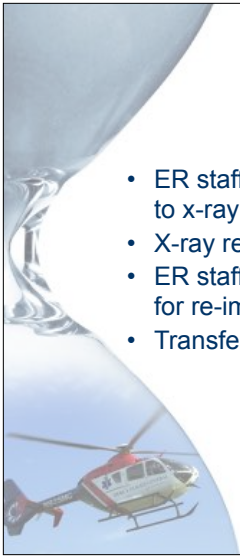


EMS Scene Size-up

- Buggy totaled, in pieces. Horse ran off.
- Two patients ejected from buggy.
 - 19 y/o woman laying unconscious where ejected.
 - 20 y/o man sitting awake in grass, after ambulating from where he was thrown.
- Additional resources? Treatment priorities?

Treatment

- Helicopter called for female pt
- Second ambulance called for male pt, who was told to sit still while EMS managed his sister's injuries.
- The brother was eventually immobilized due to "my neck feels a little stiff"
- Taken by ground to the local ED



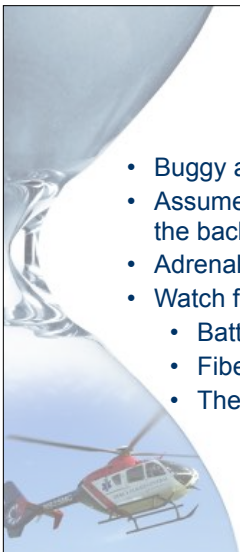
Local hospital

- ER staff removed c-collar and backboard prior to x-ray
- X-ray results: shattered C2 & C3
- ER staff radioed EMS to return to the hospital for re-immobilization
- Transfer arrangements made for trauma center



Treatment course

- Additional injury: Fx fibula
- 2 days in trauma center
- 3 months in Halo
- Full recovery without deficits



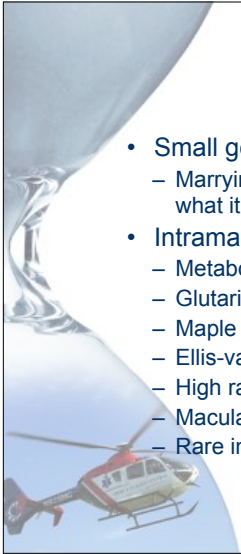
What did this teach us?

- Buggy accidents can be MCI's
- Assume injuries you'd find in people sitting in the back of a pick up truck
- Adrenaline (the pt's) can mask severe injuries
- Watch for other hazards:
 - Battery acid
 - Fiberglass shards
 - The horse



More about the “Old Order”

- No photographs (particularly Amish)
- Nonviolent: do not participate in military service
- Don't pay into/draw from social security
- Schooling 1st through 8th grade
- Animals which are used for work are not considered pets



A note on genetics

- Small gene pool from “founder effect”
 - Marrying outside the faith would destroy essence of what it is to be Amish
- Intramarriage leads to obscure disorders
 - Metabolic or inherited
 - Glutaric acid uremia
 - Maple syrup urine disease
 - Ellis-van Creveld syndrome
 - High rate of deafness
 - Macular degeneration and other visual ailments
 - Rare instances of Marfan's, birth defects



CASE STUDY

- MFC notifies trauma center of MCI

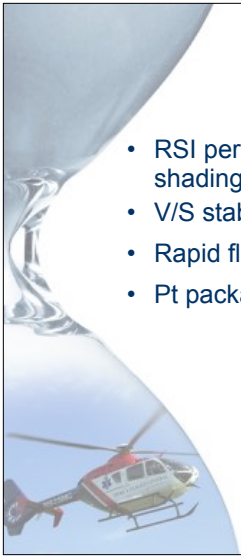


MCI scene description

- Head-on van vs. spray tractor and car with multiple people entrapped & 5 DOA
- EMS: Request 10 ground units & 5 helicopters, start triage
- Fire: Extensive extrication lasting 2 hours
- LE: Scene control, arrest drunk car driver, victim identification, crash reconstruction
- HEMS: Rapid triage, 3 flown from scene, one from local hospital, one with MFC by ground

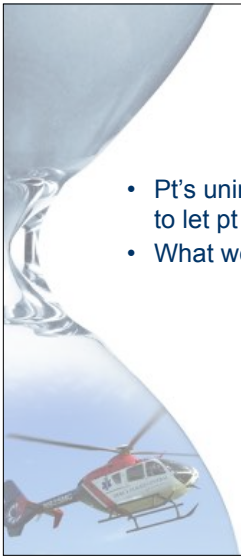
Assessment

- 1st aircraft in: First bodies being pulled out of van, determine fatal injuries of two pts, then crew is directed to female pt with suspected head injury
- 2nd aircraft in: Reassesses untagged DOA, then directed to female with suspected head injury, only responsive to painful stimuli, partially amputated left digits
- *Triage worked: Most critical pts got flown first!*

An hourglass with a red and white helicopter flying through the center. The top bulb is empty, and the bottom bulb is partially filled with a blue sky background.

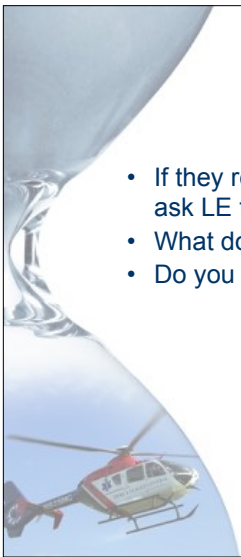
Treatment

- RSI performed in the field with fire personnel shading pts with tarps
- V/S stabilized post-intubation
- Rapid fluid infusion initiated
- Pt packaged and sent by pick-up truck to LZ

An hourglass with a red and white helicopter flying through the center. The top bulb is empty, and the bottom bulb is partially filled with a blue sky background.

Transport

- Pt's uninjured husband intervenes and refuses to let pt be transported by air
- What would you do?

An hourglass with a red and white helicopter flying through the center. The top bulb is empty, and the bottom bulb is partially filled with a blue sky background.


Legal aspects

- If they refuse because of "God's will," will you ask LE to intervene?
- What does **NY state law** say?
- Do you know what your options are?




What we did

- Pt transported by ground
 - Med Control ok'd it
 - Relatively stable v/s
 - Respect for husband's wishes
- Enlightening ride to hospital
 - Husband expresses his deep gratitude for care provided
 - "We don't want to use helicopters because we believe it is God's will when these things happen"

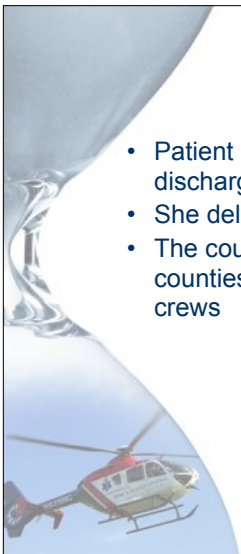


Hospital course

- LeFort II facial fx
- 6 rib fxs with PTX
- Pulmonary contusion
- EDH at C3 level
- C-spine fxs
- Carotid artery dissection
- Traumatic finger amputation
- Mandible fx
- Comminuted scapula fx
- Blood: 4 units PRBCs
- LOS: 28 days



Fx of C5 and C6 posterior elements



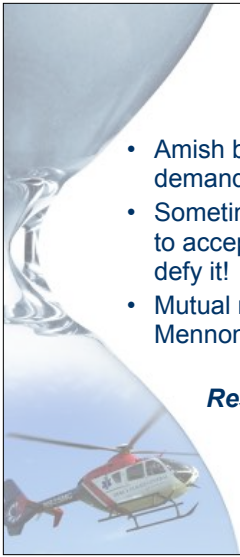
Outcome

- Patient did well during hospital course and was discharged home
- She delivered her baby full-term and healthy
- The couple hired a car to travel across two counties to personally thank the emergency crews

What did this teach us?

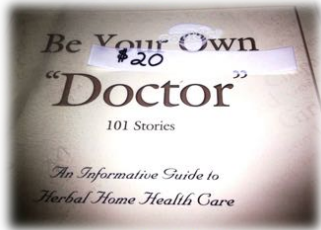
- Amish believe strongly in the will of God, and demand that it be respected
- Sometimes it's hard for Fire/EMS/Hospital staff to accept this as we work diligently everyday to defy it!
- Mutual respect is key when caring for the Amish/Mennonite communities.

**Respect their beliefs &
they respect your care provided**



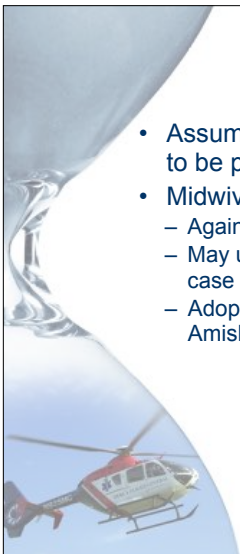
Views on medical care

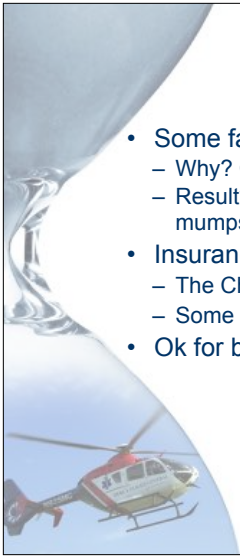
- Modesty: Caution with exposure/nudity, they won't name pelvis or other central body parts
- Medications: Herbal supplements/teas & folk remedies vs. prescription medication
- Chiropractic, reflexology, iridology



OB/GYN

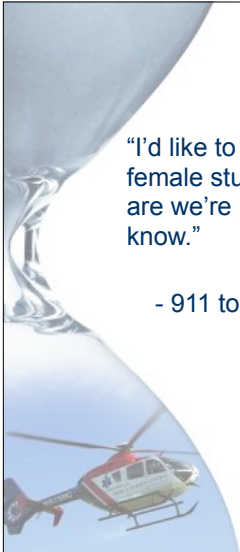
- Assume all married women of childbearing age to be pregnant
- Midwives attend home births
 - Against abortion; children are a "gift from God"
 - May use contraceptives to prevent pregnancy in the case of illness or disability
 - Adoption is common among Mennonites, rare with Amish





Views on medical care

- Some families don't immunize their children
 - Why? Cost, travel distance, misinformation
 - Result? Occasional outbreaks of polio, measles, mumps, whooping cough (pertussis)
- Insurance
 - The Church/ community is their insurance policy
 - Some collective disaster funds
- Ok for blood transfusions

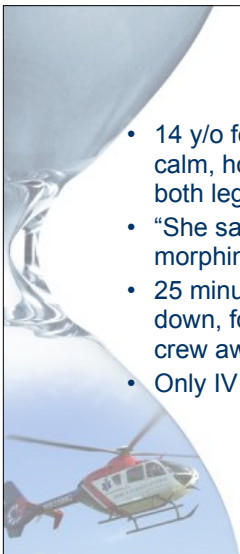


CASE STUDY

"I'd like to put you on standby. I have a 14 y/o female stuck in a manure auger, trapped. Chances are we're probably gonna have you fly. I'll let you know."

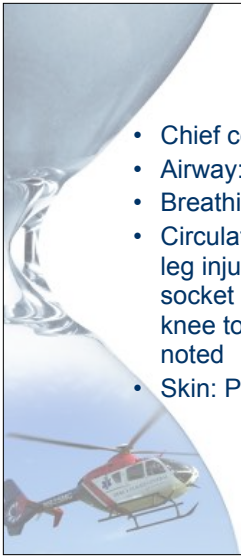
- 911 to MFC Comms Center





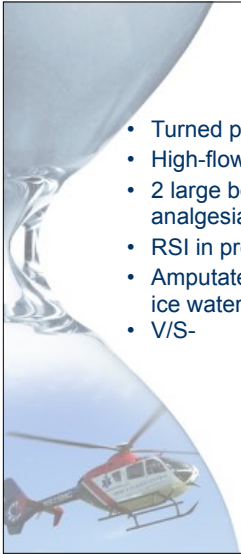
Ground medic report

- 14 y/o female found by first on-scene, awake, calm, holding herself up over the auger, with both legs entangled and hemorrhaging
- "She said it didn't hurt, so I gave her 5 mg of morphine *for me!*"
- 25 minute extrication onto a backboard, face down, for brief carry to ambulance with flight crew awaiting pt
- Only IV access was pulled during extrication



Assessment

- Chief complaint: "It hurts a little"
- Airway: Patent... with declining mental status
- Breathing: Shallow
- Circulation: Fast, thready radial pulse. Bilateral leg injuries include L hip area with leg torn from socket (full amputation) and R leg mangled from knee to toe, partially amputated. Scant bleeding noted
- Skin: Pale, cool, clammy



Treatment on scene

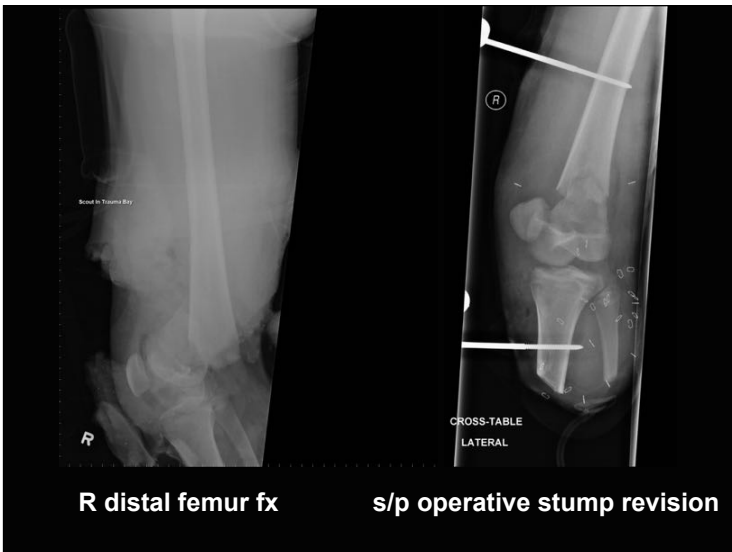
- Turned pt over and secured to backboard
- High-flow O2 via NRB
- 2 large bore IVs and 2 liters of fluid, pressure infusing, analgesia given
- RSI in preparation for impending cardiac arrest
- Amputated L leg wrapped and placed in cooler with ice water
- V/S- RR: 14, shallow
Pulse: 130, regular, thready, sinus tach
BP: 84/63
GCS: 4/5/6 = 15
SPO2: unable to obtain



"Level One Trauma" notification

Treatment in the air

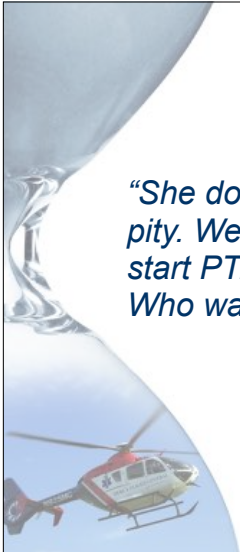
- Pt placed on vent with ETCO2
- 3rd and 4th liters of fluid infused, requested additional fluids for rooftop arrival
- Antibiotics given
- Pt wrapped in blankets to preserve body heat
- V/S- RR: 16, on vent
Pulse: 110, regular, sinus tach
BP: 49/30
GCS: 1/1/1 = 3
SPO2: 98%
ETCO2: 30





Hospital course

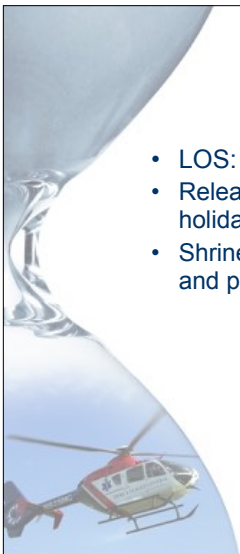
- Repeated surgeries
- L leg reattached, later amputated with reconstructed muscle flap
- R leg initially reconstructed, eventually BKA
- 36 units PRBCs, 24 units FFP, 3 packs platelets, cryoprecipitate



Hospital course

“She doesn’t even know the word self-pity. We have to coax other people to start PT. She said, ‘When can I get up? Who wants to lay in bed all day?’”

- Hospital staff



Discharge

- LOS: 31 days
- Released in time for the 4th of July (her favorite holiday)
- Shriners’ Children’s Hospital for wound care and prosthetics

Aftermath

- Community outpouring of support
 - FFs hosed down auger to protect family from dealing with the blood
 - Neighbors assured family transportation
 - Small wheelchair and prosthesis donated
- Bridge-building event for ES
 - Debriefing
 - Cultural awareness training



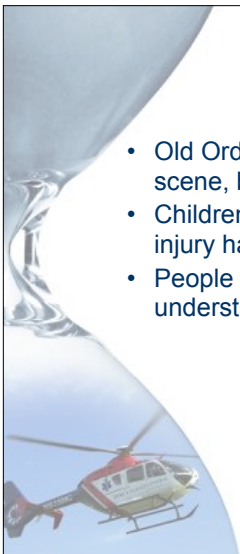
Her story continues...

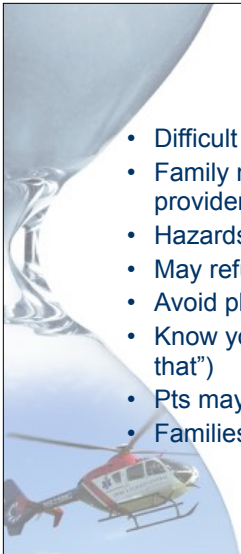
- Inspiring others with her strength and resilience



What did this teach us?

- Old Order families rarely show emotion on scene, but they care deeply
- Children worry about the inconvenience their injury has on their family and the community
- People are people (we all seek mutual understanding)





Implications for EMS

- Difficult to assess pain scale
- Family may not “act like” they care (as a provider, recognize they DO!)
- Hazards at farm/ buggy accidents
- May refuse ground or air transport
- Avoid photographs/seek permission
- Know your herbal supplements (“find an app for that”)
- Pts may have an underlying medical condition
- Families may not have been immunized



Bridge the divide = Build trust

- Attend a cultural awareness class
- Request buggy accident training
- Recruit Mennonite/Amish volunteers
- Offer First Aid or farm safety classes
- Involve local communities in Farmedic training



Bridge = Build

- Install hitching posts at hospitals
- Allow 24/7 community vigilance in ICUs
- Create alternative payment schemes

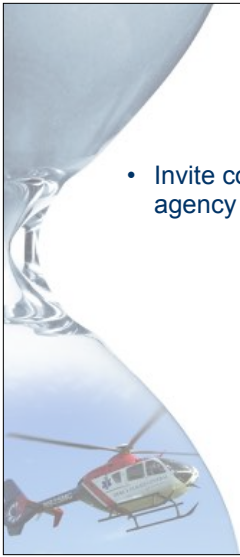


Buggy Barn
Given in memory of
H. James Herring, M.D.

Willkommen
Ich hebe meine Augen auf zu den Bergen
von welchen man Hilfe kommt
Meine Hilfe kommt von dem Herrn
der Himmel und Erde gemacht hat.
Psalm 121: 1-2

Bridge = Build

- Invite communities you have touched to your agency blood drive





Review objectives

- Why is this an important topic?
- Brief history & cultural overview of "Old Order" communities
- Implications for EMS
- Outreach ideas





Q&A



Resources

- Approach local communities for a trainer on buggy accidents and cultural awareness
- Amish EMS: JEMS, March 2012
- Farmedic Training www.farmedic.com
- Genetics: 60 Minutes
www.cbsnews.com/2100-500164_162-700519.html
- Books: anything by Donald Kraybill
- Websites



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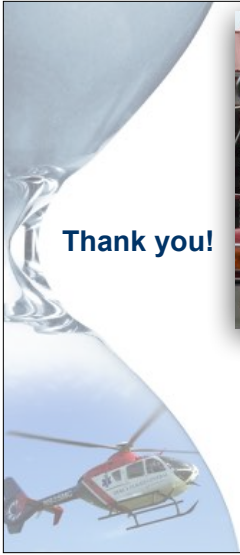
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Thank you!



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