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## Doing More With Less

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Sick patients, limited  
resources

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## Doing More With Less

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- ❖ Edwin Leap, MD, FACEP
- ❖ Newberry County Memorial Hospital, Newberry, SC
- ❖ Near Columbia, SC, the hottest place in this part of the solar system.

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## Doing More With Less

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- ❖ Notice: I'm not going to tell you much that you don't already know.
- ❖ This is just about the small hospital perspective.

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## Doing More With Less

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Lots of hospitals are doing more with less; and communities are doing less with less...

'Since 2010, 82 rural hospitals [have closed nationwide](#). As many as 700 more are at risk of closing within the next 10 years, according to Alan Morgan, the CEO of the National Rural Health Association, a nonprofit professional organization that lobbies on rural health issues.'

[https://www.huffingtonpost.com/entry/rural-hospitals-closure-georgia\\_us\\_59c02bf4e4b087df5075e38](https://www.huffingtonpost.com/entry/rural-hospitals-closure-georgia_us_59c02bf4e4b087df5075e38)

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## Doing More With Less

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- ❖ 'About 13 million children under 18 and 47 million adults live non-metropolitan areas. 65% of all counties in the country are rural.'
- ❖ Rural residents have less access to physicians.
- ❖ They tend to be 'older, poorer, sicker and uninsured...'
- ❖ 'They have higher injury, smoking, suicide and opioid misuse rates.'

<https://ccf.georgetown.edu/2017/10/20/research-update-health-care-in-rural-and-urban-ame>

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## Doing More With Less

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- ❖ This is not news.
- ❖ Rural hospitals are closing.
- ❖ Advanced care, specialists and procedures often aren't available.

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## Doing More With Less

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- ❖ Furthermore, life in 'the sticks' is not without risk.
- ❖ For example, trauma mortality is higher. Longer transport times, fewer specialists, etc.

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## Doing More With Less

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- ❖ The money isn't as good. (Sort of...)
- ❖ The culture is different from cities.
- ❖ The schools, the shopping, everything.
- ❖ Young doctors seek out cities.

## Doing More With Less

- ❖ If you really want to learn to 'do more with less,' find yourself a small community or critical access hospital and work there.
- ❖ These are the perfect examples of limited resources in the face of crazy sick patients.
- ❖ And crazy, sick patients too...

## Doing More With Less



- ❖ Large centers have lots of weird and complex cases...

## Doing More With Less

- ❖ Because they come from elsewhere...
- ❖ Where every day it's MI, CVA, DKA, dissection, torsion, leukemia, open fracture, ruptured spleen...
- ❖ Ad infinitum...



## Doing More With Less

- ❖ What is a Critical Access Hospital?
- ❖ Defined in 1997 (Public Law 105-33) in response to closures of rural hospitals in 80s and 90s.
- ❖ Intended to reduce the financial vulnerability of rural hospitals.



## Doing More With Less

- ❖ 25 or fewer acute care/inpatient beds
- ❖ 35 miles or more from next nearest hospital
- ❖ (15 if in mountainous terrain or only secondary roads)
- ❖ Annual average length of stay of 96 hour or less for acute care patients
- ❖ Offer 24/7 emergency care services

## Doing More With Less



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## Doing More With Less

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- ❖ Some hospitals I have loved...and feared.



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## Doing More With Less

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- ❖ Street Cred:
- ❖ The Memorial Hospital, Craig, CO. Kremmling Memorial Hospital, Kremmling, CO. Crawford Memorial, Robinson, IL. Community Hospital of Bremen, Bremen, IN. Decatur County Memorial, Greensburg, IN. St. Vincents/Randolph, Winchester, IN. Highlands-Cashiers Hospital, Highlands, NC. New Horizons Medical Center, Owenton, KY.



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## Doing More With Less

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- ❖ After 20 years in one busy semi-rural hospital, small hospital locums was a wonderful change.
- ❖ And an education.

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## Doing More With Less

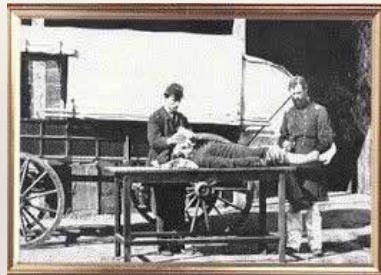
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- ❖ In order to do more with less, it helps to understand what you have less of...
- ❖ If you work there, first talk to nurses, docs, CEO, etc.

## Doing More With Less

- ❖ Part of 'doing more with less' is not being surprised and blindsided.
- ❖ Not having false expectations; for equipment and staff.
- ❖ Understanding your assets and limitations.

## Doing More With Less



## Doing More With Less

- ❖ Geography. What are the limitations? Is the hospital on the coast and affected by hurricanes?
- ❖ Is it on a mountain top and affected by snow, ice and fog?
- ❖ Personal note: helicopters don't fly if there's lots of smoke from a forest fire.

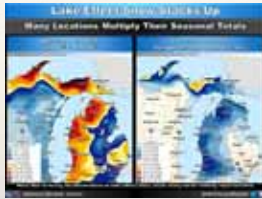
## Doing More With Less



- ❖ All of these affect transport of your patients



## Doing More With Less



- ❖ I don't really need to tell you about weather in Michigan...

## Doing More With Less

- ❖ Which reminds me: despite what accepting hospitals think, helicopters don't solve everything.



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## Doing More With Less

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- ❖ Ground EMS transfer is also getting more and more difficult.



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## Doing More With Less

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- ❖ Many counties only have one or two trucks at any time.
- ❖ Crews are underfunded, understaffed and exhausted.
- ❖ Start arranging transport early. It may take hours.

## Doing More With Less

- ❖ Before working in a smaller facility, it's wise to:
- ❖ Ask about the nearest referral centers.
- ❖ Ask if the hospital is part of a larger organization.
- ❖ This can make transfers much easier.

## Doing More With Less





## Doing More With Less



## Doing More With Less

- ❖ If you plan to work there a while, if your group is taking over, etc., go and meet the folks in the nearest referral center.
- ❖ Explain to them what you need and especially what you don't have.
- ❖ New docs really don't get it.

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## Doing More With Less

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- ❖ As soon as you can (even if it's your first day), find out what you have in terms of staff.
- ❖ Is there a hospitalist? Sometimes there is.
- ❖ Will YOU be the hospitalist? (Ask this before you ever go.)
- ❖ Hospitals seem to assume a doctor is a doctor...

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## Doing More With Less

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- ❖ Being the hospitalist can be bearable when it's slow.
- ❖ It can be agony during vacation seasons in some areas.

## Doing More With Less

- ❖ If you'll be the hospitalist/ED physician, you'll have to learn certain absolutely critical skills:

## Doing More With Less



- ❖ Admission orders
- ❖ Discharge planning
- ❖ These make airways seem like simple affairs.

## Doing More With Less



- ❖ Let's see, ED physicians. A,D,C,V,A,N,D,I,S,L...right?

A 2<sup>nd</sup> commonly used Admit orders Mnemonic

**ADC VANDISM**

- Admit to
- Diagnosis
- Condition
- Writs
- Allergies
- Nursing orders
- Diet
- Activity
- Labs
- IV fluids
- Special studies
- Medications

## Doing More With Less



- ❖ Deep breathing exercises may help...

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## Doing More With Less

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- ❖ You may simply have to round on patients on the weekend.
- ❖ Or you may be expected to admit, manage and discharge.

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## Doing More With Less

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- ❖ Personally I don't enjoy this kind of work.
- ❖ Some EP's enjoy the change of inpatient care.
- ❖ I'm interested in about two hours of anything.

## Doing More With Less

- ❖ Is there a surgeon? Is there an OB? A family doctor who acts as an OB?
- ❖ Are there other resources in the community, like orthopedics? A plastic surgeon?
- ❖ Are there agreements with other sites?

## Doing More With Less

- ❖ Sometimes you'll have this surgeon in town. He landed at Normandy and hasn't stopped operating since.
- ❖ He'll open skulls and chests, and used to put rods in femurs. He may be out hunting.





## Doing More With less

- ❖ She delivered every child in a five county radius since just after the Civil War.
- ❖ She's fearless and everyone owes her a favor.
- ❖ Including the Governor.



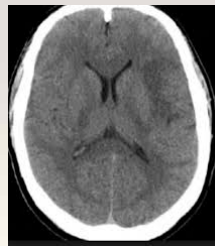
## Doing More With Less



### CODE STROKE

- Focused history and physical
  - Including contraindications to thrombolytic therapy
- Neurologic assessment
  - facial paresis, arm drift/weakness, and abnormal speech indicate high positive predictive value for stroke
- Vitals, glucose
- Noncontrast CT Head STAT
  - To distinguish intracranial hemorrhage from ischemic stroke

- ❖ What about stroke?



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## Doing More With Less

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- ❖ Often no tele-neurology.
- ❖ The rules are changing in terms of time window, thanks to intervention. This is good.
- ❖ The weather is tricky, which is bad.
- ❖ Learn to describe the exam clearly.

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## Doing More With Less

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- ❖ You may use your cell-phone to send CT images.
- ❖ (If you say HIPAA three times and spit, it's OK)
- ❖ You may have to give tPA.
- ❖ If possible, and stable, triage away when EMS calls.
- ❖ Many services already to this.

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## Doing More With Less

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- ❖ When the receiving hospital asks about your neurologist, don't laugh too loudly.

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## Doing More With Less

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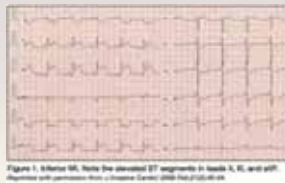


- ❖ Seriously, I thought they were mythical creatures

## Doing More With Less



- ❖ What about STEMI?

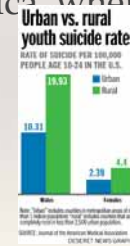


## Doing More With Less

- ❖ Many EMS services will go ahead and transport these patients to referral centers, knowing the delays in coming to the CAH first.
- ❖ They still walk through the door.
- ❖ You do what you can with what you have.
- ❖ TPA still works...

## Doing More With Less

- ❖ Psychiatry is also a huge issue in rural America. <sup>where</sup> youth suicide and addiction rates are staggering.

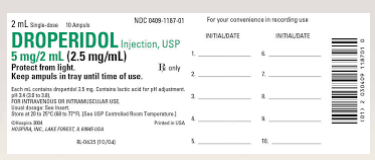


## Doing More With Less

- ❖ Tele-psychiatry is helpful. Few can afford it.
- ❖ If facility can contract with a larger system it can ease evaluation and transfer.
- ❖ Most rural areas don't have much. No easy answers.

# Doing More With Less

❖ This might help...



# Doing More With Less

❖ Maybe this is our future?





## Doing More With Less

- ❖ You always wanted to be a cardiologist? Neurologist? Neurosurgeon? Congratulations? On the mountain-top, in the hurricane, during the Sharknado, you are.
- ❖ You may keep an SAH overnight due to snow and ice.

## Doing More With Less

- ❖ Like stroke, or MI, you can manage head injury for a few hours if needed.
- ❖ Phone consult and do your best.



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## Doing More With Less

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- ❖ Communication is key. Use all resources available as you'll most likely be...



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## Doing More With Less

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- ❖ Sometimes the hardest part is explaining to other people (often residents) that you don't have the things the patient needs.

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## Doing More With Less

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- ❖ There are things you may not have. An ICU, a cath lab, an MRI.
- ❖ After hours ultrasound in days that end in Y.
- ❖ True story: a tech that can only scan men.
- ❖ People will think you're kidding.

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## Doing More With Less

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- ❖ Be firm and be realistic. You can't do a plastic closure for two hours while the ED piles up and there are sick people on the floor and taking up your five other beds.

## Doing More With Less



## Doing More With Less

- ❖ 'Well I guess, but I've never had someone send me a laceration from an ER. Why can't you close it?'  
Maxillofacial fellow at referral center.
- ❖ To whom I sent the photo.
- ❖ 'We brought our own plastic surgeon, is that OK?'

## Doing More With Less

- ❖ Remember that EMTALA aside, sometimes you can only make a patient so stable.
- ❖ If the AAA is leaking and I have no surgeon, well a blood pressure of 60 may have to do...

## Doing More With Less



- ❖ Most sites use tele-radiology. Will you get real-time reads? Can you call for help if not?



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## Doing More With Less

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- ❖ When patients are seriously ill or injured, and you know they will need transport, call early and begin the process. Open fracture, sick infant, OB, stroke, etc.
- ❖ Get the ball rolling.

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## Doing More With Less

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- ❖ This is key, emergency medicine trained physicians:
- ❖ You don't have to know it all, or do it all.
- ❖ Do what's best for the patient.
- ❖ Resist the temptation to pride.
- ❖ The work up doesn't always have to be complete.



## Doing More With Less

- ❖ If you have to send your patient with two large bore IV's and an LMA, or bloody cric, well that's what you have.
- ❖ And they're alive.

## Doing More With Less

- ❖ Two children ejected from buggy struck by F-250. Stable, no apparent injuries, normal VS. IV access. Awake and alert. C-collar, backboards.
- ❖ Transported without labs or X-rays, within minutes of arrival and evaluation.



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## Doing More With Less

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- ❖ Seriously, what was I going to do with them in a Critical Access ED?

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## Doing More With Less

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- ❖ Other communications issues: will phones and Internet function?
- ❖ Not always.
- ❖ Connectivity may be poor due to weather or infrastructure.

## Doing More With Less

- ❖ First night as director in small rural hospital.
- ❖ 12 patients from bus crash.
- ❖ Internet and phone services down due to another crash.
- ❖ Nurse cell phones used to communicate with receiving hospitals and radiologists.
- ❖ Innovation is key when doing more with less....

## Doing More With Less



- ❖ Your skills are uniquely suited.
- ❖ Intubation is up to you.
- ❖ No anesthesia backup so consider adjuncts.
- ❖ There may or may not be video laryngoscopy.

## Doing More With Less



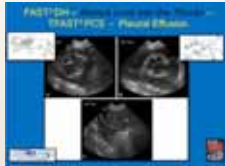
- ❖ Bougie, LMA, NP, OP airways.
- ❖ Cric kit.
- ❖ Warmed humidified nasal cannula oxygen may help avoid intubation in infants.

## Doing More With Less



- ❖ Many times, BiPap has saved the day.

## Doing More With Less



- ❖ Ultrasound? Can really help cut time to diagnosis.
- ❖ If the hospital has one. This is not an absolute.



## Doing More With Less

- ❖ It's heresy, I know. But sometimes, when you're alone, CT is the better option. The accepting center will probably ask for it anyway.



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## Doing More With Less

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- ❖ IV access: Peripheral, EJ, central line.
- ❖ Femoral lines are fast. Dirty? Sure.
- ❖ But it does the job and gets you back to the patients.
- ❖ If you have time? Do what you like.

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## Doing More With Less

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- ❖ Don't get hung up on central lines.
- ❖ Pressors through peripheral IV's. More study needed, but looks good so far:
- ❖ <http://rebelem.com/peripheral-vasopressors-safe-dangerous/>



## Doing More With Less

- ❖ Most of the drugs we really need in a hurry can be given IO.
- ❖ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4831096/>

## Doing More With Less

- ❖ The IO is AWESOME.
- ❖ Don't be proud, get access.
- ❖ Don't apologize.
- ❖ 'Say hello to my little friend!'



## Doing More With Less



- ❖ And there's this: cool huh?
- ❖ <https://www.resus.com.au/2017/11/09/intraosseous-needle-craniotomy/>



## Doing More With Less



- ❖ This was July 1st...

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## Doing More With Less

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- ❖ Brush up on your critical care skills.
- ❖ Review your infusions and vent management.
- ❖ You may find yourself running an ED ICU until transportation is available.
- ❖ Or Spring...

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## Doing More With Less

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- ❖ Don't assume the pharmacy has what the big center has.
- ❖ Don't assume you have much blood. You may only have two units.
- ❖ That's right, 2 units.

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## Doing More With Less

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- ❖ Don't feel like you're 'dumping' the patient if you can't offer what they need.

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## Doing More With Less

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- ❖ Don't be afraid to call and ask questions, even if not for transportation.

## Doing More With Less

- ❖ Keep resources at hand. Hopefully the site has reference books.
- ❖ Don't assume the Internet will work.
- ❖ Hopefully your smart-phone has some things you need.

## Doing More With Less



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## Doing More With Less

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- ❖ Too many films and labs don't change anything and delay care.

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## Doing More With Less

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- ❖ 'Hello, this is Dr. Leap at Highlands Cashiers Hospital. I have a five-year-old Hispanic male who has been run over by a car.'
- ❖ Trauma surgeon: 'Well he needs to be at the trauma center!'
- ❖ 'Uh, yeah, that's why I'm calling you...'



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## Doing More With Less

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- ❖ 'What if I can't do anything to help?'
- ❖ Simply by being there with your skills, you're giving the sickest patients a fighting chance.
- ❖ If you weren't there they'd certainly die. If you are they might not.

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## Doing More With Less

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- ❖ Lesser issues: You're no good if you're starving.
- ❖ Make sure they feed you or bring your own food. 24-36 hours is a long time to eat crackers.
- ❖ Some hospitals may let you go 20-30 minutes away. They'll just call you.

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## Doing More With Less

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- ❖ Some days you'll do nothing.
- ❖ Some days you'll wonder why you ever came to the the middle of nowhere.
- ❖ Good time to read, do CME, write, or just put up your feet and watch the snow fall.

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## Doing More With Less

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- ❖ Community Hospital of Bremen, Bremen, IN, seriously has the greatest call room in the known universe.
- ❖ And a hitching post for horse and buggy.

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## Doing More With Less

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- ❖ These are not places for the faint of heart, who have little to no experience.
- ❖ If you feel ready, and comfortable, you give these communities a great gift.
- ❖ Your knowledge, experience and calm will change lives and save lives that might otherwise be lost.

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## Doing More With Less

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- ❖ And what a great place to go when you're older, tired of the rat race and want to slow down but still be useful!

- ❖ You know, like security.



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## Doing More With Less

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- ❖ I tricked you. I'm here less to educate you than to recruit you.
- ❖ Rural America, small hospital America, is desperate for your skills and experience.
- ❖ The greatest resource they can have, the best chance the patients have, is you.

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## Doing More With Less

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- ❖ So in summary: You have limited resources; use them well
- ❖ Communicate early
- ❖ Transfer early
- ❖ Don't over-test or over-treat
- ❖ Know your limitations and that of the staff/hospital
- ❖ Stick to the essentials (airway, easy lines, necessary meds)

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## Doing More With Less

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- ❖ Check the weather
- ❖ Check the food situation
- ❖ Take a minute to talk to the patients (you'll usually have time)
- ❖ Enjoy the peace and quiet
- ❖ Don't feel guilty napping or watching Westerns
- ❖ Know that you're valued

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## Doing More With Less

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- ❖ Rural hospitals are under enormous financial pressure.
- ❖ Rural communities often struggle without medical care.
- ❖ Please consider spending time at a small rural hospital or CAH.
- ❖ You won't regret it.



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## Doing More With Less

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- ❖ After all, they're part of Emergistan too!





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## Doing More With Less

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- ❖ Thank you!
- ❖ [edwinleap@gmail.com](mailto:edwinleap@gmail.com)
- ❖ [www.edwinleap.com](http://www.edwinleap.com)