



Advanced Emergency Nursing JOURNAL

Presents

Collected Clinical Tips©

*from the experience and wisdom of its Editors
as published on its website*

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#34 Position is everything

Adjusting the knee crank on the gurney, pillows and blankets, make for much greater comfort during a long visit (“more like a *lounge chair*”). Your home furniture doesn’t have a solid steel plate under the cushion! Elevating the foot end helps keep gravity from sliding the patient down, heads from lolling, and prevents airway flexion.

Sitting eases many tasks and makes for steadier work. With “rolling” stools, first adjust the height for yourself, and as you sit, grasp the under-rim of the seat; rolling stools can roll right out from under you. This writer can attest to the serious injury that may result. Rolling stools should be labeled “Staff Use Only.”

[“FrostBite Treatment in honor of the Polar Vortex”](#) from the [University of Maryland Emergency Medicine Educational Pearls](#).

Can you handle this “bad turn-over” patient? [“Bad Pneumonia” in DNR Patient by John Dallara, MD, in Emergency Physicians Monthly](#).

Consider using a flexible scope or optical stylet to confirm tracheal rings (a filed image is very convincing). Even tactile confirmation with a bougie would help. Railroading over either helps correct delivery of the cannula.

#35 Turning Negatives into Positives

1. Your unconscious patient suddenly has a pool of fluid in his pharynx. As you reach for the running suction device, pick up the tubing with your lower fingers fold and pinch the tubing closed while directing the yankauer towards the fluid with your forefingers. Immerse the tip in the fluid while simultaneously letting go of the tubing.

Why? Suction devices are open systems. Maximum intensity of suction and flow don't occur until the system is closed, *i.e.*, either occluded or the conduits are full of fluid. Recall how you test the system by occluding it. Occluding the tubing as your hand transports the tip to the patient's flooded airway will give you a head start, producing improved or maximum suction at *initial* use.

2. A well-ventilated ED will have increased air exchanges per hour. When you wish to confine the patient's contagious pathogens to his own room, you opt for a Negative Pressure Room where with the door closed, a continuous air exchange exhausts the pathogens. If you have a neutropenic patient who must be protected from the pathogens of others, you will opt for a Positive Pressure Room where the overpressure within the room prevents entry of airborne substances. Are you not sure of which is set? Slip a sheet of paper under the door at the gap. Movement inwards = negative pressure; movement outwards = positive pressure; stays still = probable normal ventilation. [Caveat: Check with your facility's technical staff that this is an adequate test with your system.]

[Guidelines for Environmental Infection Control in Health-Care Facilities](#)

#36 The Chair

If a patient has fainted or gone to ground, without injury, an easy way to get the patient up without the usual tugging and pulling (with risk of back strain) is to use a sturdy straight chair. Lift the legs by the pants cuffs or ankles. With the chair lying on its back on the floor, place it under the legs as if the victim was sitting in it, insert chair/scoot patient onto the seat. Now one or two strong staff can raise the chair to upright position with the rear feet as a fulcrum. The patient is now safely seated. If light-headedness resumes during lifting, abort and wait for further recovery. If need be, the chair can be used as a stretcher to lift the patient to a gurney. Exercise good body mechanics throughout.

A patient at Triage in a straight back chair becomes pre-syncope and is clearly fainting. Caution him to remain still, and tilt the chair backwards by its rear feet lowering carefully to the floor. Properly done, there is no injury (Mind your back.), the patient is now supine with legs elevated for prompt and maximum recovery.

There've been times when the ED is full, someone needs to go back, and no wheelchair is available. With a patient able to follow instructions (sit still, lift feet slightly) the rolling office chair from Triage has substituted. If the feet drag slightly, pull the chair in reverse direction.

#37 Hydration

You have patients with N/V/D. There's a limited supply of IV fluid. What to do? There may be a nursing delay in getting the IV started or veins might be difficult.

My experience suggests to immediately give the dose of Ondansetron as ODT wafers to begin their work abating nausea early. Cost is higher than tablet (doesn't provoke vomiting) or injection (but there's no line), calming the patient. Oral dose = parenteral dose, with ~same onset & duration. It's bland, without taste, except a rare person noting a mild bitter taste. Start IV fluids ASAP. Convert to oral fluids ASAP.

[World Health Organization Oral Rehydration Solution](#) is a [mainstay in much of the world](#). Coaching the parent and encouraging frequent small amounts can be time-consuming at first, but effective. Nasogastric tubes can be useful with sicker children with poor IV access.

[Hartling L, Bellemare S, Wiebe N, Russell KF, Klassen TP, Craig WRaine. Oral versus intravenous rehydration for treating dehydration due to gastroenteritis in children.](#) Cochrane Database of Systematic Reviews 2006, Issue 3. Art. No.: CD004390. DOI: 10.1002/14651858.CD004390.pub2

#38 Kinks in Life

Are you frustrated by snarled and tangled tubing, cords, and cables? It's not only needless and inefficient; it can impede the swiftness of care when time is critical. A sailor or well-trained Boy Scout can explain that such products inherently have a curl. Work *with* the curl; no problem. Untangle and straighten the cable. Find the curve and droop. While coiling, give the cable a twirl with the fingertips to align the cable in natural curls. It will then pay out smoothly like a lifeguard's throwing buoy.

Editor Jean Proehl suggests separating electrode wires on a tongue blade.



One can also pre-attach electrodes while still on their plastic backing strip.

Bundle multiple wires with aerosol tubing or computer/stereo spiral wraps. Also do sub-groups e.g. limb leads.

#39 Never apologize; consistency

It seems as if one should apologize, particularly at an awkward hour or to an awkward personality, for calling a consult or admitting provider. This, however, makes you like the submissive dog who *rolls over* and shows his underbelly to the Alpha. Maintain your equality by going directly into the compelling facts: "*It was necessary that I call you because ...*" This focuses your listener on the facts and lets science drive the discussion.

Consistency and fairness should be hallmarks of care with frequent flyers and street people. They will return again. Encourage these traits in other staff, too. You will all build your street credit, doing so, for when you must say "no" or to ask them to leave when needed. In the long run, this is more valuable than the temporary victory of a spiteful or punitive act from petty irritation.

#40 Needlework

Some patients can find beneficial distraction from irritating injections by having them scratch or stroke their skin ~3-6 cm from the needle during the injection.

For a nearly painless IV start without an anxious jump by the patient, "lower the flat-underside of the point gently, then firmly, against the skin; "I'm just going to touch you right there so that you know where it is . . . (allow a few moments as you are doing this to fatigue the nociceptors in the skin) . . . then, One, Two, Three-e-e" (gently and quickly pop through the skin)." This eliminates the fearful anticipation, and attenuates the sensation of puncture.

[I.V. Starts . . . --improving your odds!](#) By Tom Trimble, RN CEN [Emergency Nursing World!](#) (<http://ENW.org>) © 1997->date

Does your ED have a toolbox? It's useful for those quick problems, and for "some assembly required." Include a telescoping inspection mirror and extendible pick-ups and magnets for retrieving fallen objects that roll underneath carts and cabinets.

Sending someone home with a course of low molecular weight heparin, or other injection therapy? Remember to Rx for a sharps disposal container so the patient can return sharps safely to their pharmacy for disposal.

#41 Eliminating problems

If you're sending someone home whose mobility will be briefly impaired, and they are likely to rise in the night for BRP, ask how far down the hall the BR is. You may be able to do them a kindness with the gift of a urinal or bedpan.

An improvised commode for a brief problem would be to place a bedpan on a sturdy straight chair next to the bed. Suggest putting the bedpan inside an inverted plastic bag and dust the sitting area with a little talc to prevent sticking. When finished, the bag can be turned back out and knotted with the contents inside for disposal.

If there is also clumsiness of the hands and you think there might be a problem with spillage of a urinal, you can suggest a large coffee tin (with a snap on lid) filled with cat litter.

If the problem will be longer term, suggest a local vendor of durable medical equipment, or occupational therapy evaluation if indicated.

#42 AAOC

Patients often don't like the taste of magnesium/aluminum antacid solutions. Have them hold the dose in the mouth, then drink the water chaser to flush it down. The oral coating and taste are removed better, and the extra water ensures diffusion within the stomach.

Collected Clinical Tips from Advanced Emergency Nursing Journal, by The Editors.

Don't do this if it's mixed with viscous lidocaine as it would negate the local anesthetic effect of the coating. Many object to the taste and numbing sensation of the lidocaine, so explain its role in your plan and that it will only last for 20-30 minutes

Bolder folks can be asked to "knock it back" to the back of the mouth and swallow. Those with aversion to the taste, but have adequate "suck" can drink it from a wide flexible straw with the long end as far back in the mouth as tolerated bypassing the taste buds.

Remember that many people don't consider OTC antacids, H2 Blockers or PPI acid controllers to be "real" medicines and may not report usage and even may use excessive amounts. Review if there are electrolyte abnormalities, increased edema, complaints of non-specific abdominal pain or bowel irregularities.

#43 Inhaled Meds

We're accustomed to using small-volume nebulizers for bronchodilators, but they have other uses.

If you are preparing for awake intubation (or even nasopharyngoscopy for a fishbone), you can numb the airway with 4 ml of 4% Topical Lidocaine (adult dose) nebulized with a mask rather than mouthpiece (some do this before an NGT insertion).

Patients with intractable cough can be eased with inhaled nebulized morphine or lidocaine.

Elders, especially from SNFs, often have inspissated secretions that shunt aeration and unproductive cough is exhausting. Start a neb of NS (if you're trying for a sputum culture) or sterile water to loosen the phlegm while waiting for a setup of heated nebulizer to continue the job.

Large volume nebulizers for mist therapy usually have a Venturi port to allow control of FIO₂ yet give plenty of flow to carry more water particles.

This gives a better idea of oxygenation requirements than a simple flow rate. If the patient has a very high O₂ requirement, less room air is entrained and total volume delivered decreases as FIO₂ increases. If this is not sufficient to meet minute volume oxygen demand at the chosen FIO₂, you will need to use either a special high-flow nebulizer that can deliver that rate or combine the output of two nebulizers with a Y-shaped connector. {I have cared for an ED patient with a 96 LPM demand for 100% oxygen at rest –RR & HR would increase with any movement, but did not need intubation.}

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An addict resuscitated in the field with Naloxone, but still requiring observation and having a wheeze, was lapsing back into “the nod” with hypopnea and brief apneas, was also belligerent and threatening harm if given more Naloxone, was successfully treated with Naloxone added to his nebulizer. Think, too, how this can be titrated to desired level of response unlike parenteral or intranasal dosing which cannot be recalled if overt withdrawal occurs.

#44 The “Poof Sign”

Have you seen drunk or sedated patients (with natural airway) who breathe out with a little “poof” of the lips and silly expression? This is an incipient airway obstruction as the soft velopharynx has relaxed and drops posteriorly diverting expiratory flow from the nasal passage of usual escape in awake persons so that it passes orally and puffs the lips apart. The “poof sign” marks the need for more vigilance as more drug will lead to relaxing of airway tissues and abolish the effect of pharyngeal dilating muscles with likely airway loss.

If the patient can be observed at this level, then opening the mouth, repositioning of head and neck may be sufficient. Further sedation will probably need a nasopharyngeal or oropharyngeal airway. If the patient is bagged and the mouth isn't opened, without correction, there is likelihood of breath-stacking and auto-peep, especially if the Triple Airway Maneuver is inadequate: the lips must be separated, the Triple Airway Maneuver must effectively tighten the neck tissues; ideally, space must be made with an OPA/NPAs or supraglottic airway device depending on needs and plans.

A drunk, sleeping it off, should be in high-visibility, Recovery Position [left lateral recumbent, neck extended and rotated downwards for gravity drainage. NEVER ACCEPT prone position –it can be fatal; use an NPA if tolerated, SPO2 & ETCO2 monitoring is highly desirable.

Remember, ethanol has especial effect on the genioglossus muscle, the patient is sedated –yet irritable if disturbed, may have a large fatty liver impeding the diaphragm, and increased fat pads in the neck and neck girth that contribute to airway problems [lateral position helps enlarge pharyngeal airspace], and a tendency to vomit. Be wary, also if there is a cervical collar in place. If there is concern for total dose and rate of ETOH consumption (college students, binge drinkers) or co-intoxicants, strongly consider the patient as if an ICU player.

#45 PIV: Will it work? Does it work?

When placing an ultrasound-guided peripheral IV, e.g., Deep Basilic Vein, be sure to use a longer cannula so as to avoid infiltration as most standard length cannulae do not reliably stay in the vein, especially from power-injected contrast dye. When planning access, consult with the Radiologist before the intended study as to their technical requirements or possible modifications thereto, e.g., lower pressure or hand injection.

When checking for infiltration by a peripheral IV, add transillumination to inspection and palpation, the light will be diffused and brighter in fluid-filled tissue. Comparison with the contralateral side may reveal a “normal” versus infiltration.

#46 Winged Needles | Winged Victory

When discarding a disconnected winged needle, tie an overhand knot in the tubing so that it will not dribble blood while dropping into the Sharps Bin.

It's a lucky day when the abscess to drain is superficial and fluctuant so that you can freeze-spray the skin, insert a large winged needle into the pool of pus, aspirate to decompress easing pain, and then instill lidocaine, before opening, packing, and dressing.

Some medications lend themselves to direct IV injection when only a single dosing is planned, saving the patient the effort and expense of IV set-up. If the patient can be relied upon to be calm, one can venipuncture, give an opiate/NSAID sequence, and a first generation cephalosporin over three to five minutes (check prescriber's insert first, and applicable hospital policy).

Single infusions to fragile veins or patients whose few present veins must be preserved for future use, may often best be done with a winged needle as they can be less traumatic without the secondary insertion of a larger cannula which is also more wearing to the vein's intima.

#47 The old “One-Two Punch”

When you are treating severe pain which is susceptible to NSAID, *e.g.*, renal colic, musculoskeletal, or inflammatory injuries, try the one-two punch combination of Fentanyl and Ketorolac. Prompt relief with prolonged effect from complementary onset and offset times. Even if supplementation is needed, the opioid-sparing effects of the NSAID will minimize supplementation to a reasonable oral dose.

If a patient comes in with a painful burn or scald, immerse in lukewarm water to exclude air (and cooling any residual stored heat in the tissues) and provide for exam and cleansing. Give an *adequate* dose of rapid opioid and NSAID, dress the burn after appropriate treatment with an occlusive dressing (sufficient to keep air from irritating the nociceptors), and your patient will depart pain-free and happy.

#48 Ears, Burs, & Bugs

A man arrived in misery with a foxtail in his ear from romping in grass with his dog. The point went in first, so that withdrawing would be like drawing an umbrella backwards. A few light spritzes with 10% Lidocaine eased distress (feels warm). Short work with Hartman's forceps; it's out, and patient is joyous.

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A Veterinarian friend suggests (assuming the TM is intact) when a dog has a foxtail in the ear, to fill the ear with mineral oil. This soothes, softens, and allows the foxtail to float out or be shaken out.

This is in line with traditional first aid recommendations for bugs in the ear to stifle them and float them out. Mineral oil, or even olive oil could be used; slightly warm (like a baby bottle) avoids the surprise of ambient temperature oil in the ear.

#49 Aromatherapy for Toxic Socks Syndrome

Modern approved hospital-grade room deodorants and skin-care products are better than ever, and are to be preferred. Yet there may be times when older expedients may still find use.

Confinement of ominous vapors from the unkempt patient may be a first strategy when physical needs come first. A separate room, or high-ventilation high-visibility location for a hallway patient. When footwear must be removed to complete the exam, paper bags can be fastened over the feet or hands until care is done. Plastic bags are useful, if there is liquid soakage, but a greenhouse atmosphere ensues which fosters infection, and are slippery if the patient should try to rise.

Temporizing treatment may be to alkalinize the affected area with Baking Soda or coating with antacid until cleansing can be done.

One may gain personal respite from acrid fumes may be close fitting goggles and a mask. Chewing gum or a dab of menthol on the mask or under the nose may disguise the aroma. A PAPR (powered air purifying respirator) may be necessary in extreme cases.

When mobile, the patient can be taken to the HAZMAT decontamination shower or bathing facility.

When a counter-aroma must be used, various essential oils have been tried. Simple methods are a few drops on gauze left in the room, or diluted and wafted into the air with a nebulizer. Oil of Wintergreen gives a minty candy-shop air. Dental Eugenol (Clove Oil) reminds one of a holiday ham. Vanilla with its cookie kitchen scent is said to be calming.

#50 Two Things for Resuscitation Crises

In your Resuscitation Room, do you keep a:

1. Meconium Aspirator?
2. Bronchoscopy Swivel?

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"Hmm, maybe there's a meconium aspirator in the pediatric cart."
"Why a bronchoscopy swivel? We don't do that!"

In Difficult Airways, there's an Inverted Pyramid of Priority.

Clear/Open the airway
Oxygenate
Ventilate
Intubate

- Having those two parts, lets you do some things simultaneously:
- Clear large volume fluids and debris.
- Oxygenate during attempts.
- Oxygenate/Ventilate through a supraglottic airway, suction access.
- Use the supraglottic airway as a conduit for fiberoptic/optical stylet, inspection and intubation, while maintaining oxygenation/ventilation.
- Use with nasal trumpet/15mm connector for CPAP/ventilation while scoping other nostril or orally.
- Oxygenate/Ventilate while passing an exchange catheter.
- Oxygenate/Ventilate during foreign object retrieval by fiberoptic scope.

Check these links for possibilities.

[LarryMellick,MD YouTube: "Suction as you go" ET Tube Device](#)
[EMCrit: Intubating the Critical GI Bleeder](#)
[EMCrit: Exsanguinating Hemorrhage from Mid-Face Fractures](#)
[EMCrit: Oxygen Physiology & Pulse Ox Lag](#)
[LITFL: Rapid Sequence Airway](#)

#51 Gastric Tube After ET Tube

Once the patient is intubated, it's often wise to decompress the stomach with an NG/OG tube, *in situ*. Unhappily, it does not always pass easily as the patient can't cooperate, there's a lack of cough; and the ETT is in the way. Be alert to sudden ventilator volume loss or audible airway leak; *always* listen to the tube outlet for "breathing" as a first test for incorrect placement. The ETT does **not** protect against intratracheal placement of the gastric tube.

Proposed solutions from the literature may be loosely sorted as:

- **Make more space:**
[Parris \[Laryngeal Lift\]](#);
[Mundy \[cool tube, lift larynx\]](#);
[Gupta, et al \[Air Insufflation\]](#).

- **Alter the pathway:**
[Mahajan, et al \[Neck Flexion\]](#);
[Bong, et al \[Neck Rotation\]](#).
- **Divert from obstruction:**
[Ozer & Benumof \[move larynx laterally\]](#).
- **Stiffen the tube:**
Many authors [chill the tube];
[Hung & Lee \[water-filled tube\]](#).
- **Manipulate the tube:**
[Mahajan & Gupta \[digital manipulation\]](#).
- **Instrumented Delivery:**
[Appukutty & Shroff \[4 method study\]](#);
[Bryant \[iLMA ETT used\]](#);
[Ching, et al \[-Review\]](#);
[Cohen & Fox \[split ETT\]](#);
[Fakhari, et al \[split ETT conduit\]](#);
[Khatak & Samant \[cool, guidewire, lift\]](#);
[Kopterides, et al \[ETT conduit\]](#);
[Kumar, et al \[-Review\]](#);
Many authors [DL & Magill Forceps];
[Moharari, et al \[Video Laryngoscopy\]](#);
[Rajendram & Popat \[FOB/split ETT\]](#);
[Siegel & Kahn \[Nasoesophageal ETT\]](#);
[Tsai, et al \[tied ETI stylet\]](#);
[Yamauchi, et al \[Prone Position\]](#).

#52 Taking the sting out of life

Is it one of those crazy days with an erratic pace and you're not sure how soon you'll be able to "do that lac?" Numb it now, and re-numb it later? Many providers mix lidocaine and bupivacaine in 1:1. This gives prompt relief from the shorter-acting lidocaine and longer relief (but slower onset) from the bupivacaine. Everyone is happy.

My younger son's finger was broken in a brotherly tussle. He had that greenish pasty look from pain when we presented. Brief exam and history of the isolated injury was followed by an immediate digital block gave full relief within five minutes of door time. Satisfied patient and parent!

[Buffering lidocaine](#) at time of use (or having the hospital pharmacist premix small batches) will nullify the acidic stinging and enhance the local anesthetic experience. Topicals, warmed injectate, smallest needle available, and s-l-o-w injection, distraction and verbal anesthesia, also ease the task.

Cepeda MS, Tzortzopoulou A, Thackrey M, Hudcova J, Arora Gandhi P, Schumann R.
[Adjusting the pH of lidocaine for reducing pain on injection.](#)

#52a – 52 Weeks; a full year of Clinical Tips!

This is the anniversary of AENonline's "Clinical Tips", bringing you free added value of hints, advice, and experience to aid you in your practice.

Please look back at the Collections (links below) and give us **FEEDBACK** on Tips that you've liked, have added to what you do, or that have surprised or informed you perhaps without realizing it. Please contribute tips of your own to share with colleagues. We'll give you credit. No one knows our work the way we do; let's share it!

#53 Little valuables

It might seem like the lowliest form of ward nursing to ensure the inventory and protection of the patient's adaptive aids. However, they can be essential, and their loss quite costly. In the heat of a moment they can be easily lost if set aside. Patients going to the OR or transferred are perhaps most likely to lose their things, and ward inpatients less so.

- Eyeglasses: Put a label on the ear-piece so that glasses can still be worn. No case; use a lab bag. May need to wear to Pre-Op area.
- Contact Lenses: Look carefully. Missed lenses worn over-long can injure the eye (dry eyes, mask pressure). Have suction cup removers, and cases or immerse in sterile saline in labeled cups (L/R).
- Removable Dentures: Leave in for mask ventilation; remove for intubation. Patients have aspirated the adhesive sheet. Some patients have never been seen without dentures by current spouse and may insist on wearing to OR.
- Hearing Aids (Over the Ear, In the Ear): Can be damaged by MRI. Can be *easily* missed if covered by hair, or very small deep canal In the Ear types. Turn off by opening battery door. Leave open to dry. Use padded container with a closed lid. Work over a soft surface in case of dropping.

If going to OR, may need so as to comprehend instructions, participate in Time-Out Verification; if very deaf, may be hard to arouse post-operatively or during sleep without hearing aid as deeper sleep may occur, absent auditory stimuli.

- Larger objects, *e.g.*, canes, prostheses, braces, walkers, wheelchairs, are usually not a problem, *if labeled*. Typically left behind if covered or separated from patient. Electric chairs and mobility scooters will need charging. Personal Electronics may not be seen if plugged in. Labeling is important for all objects.

#54 Let's dispense with this

Never use a sharp if you don't have to; especially if you must use it repeatedly. Make sure what you use gives the flow characteristics that you need. Instead of a needle, sometimes you want to put a spigot in the bung of the barrel.

Think how much easier repeat bolus dosing of Propofol would be with a dispensing pin in the labeled vial to which your syringe is Luer-Locked. Just draw and replace after giving.

Are you reconstituting and giving coagulation factors? The large bore makes an easy draw for a large syringe.

Malignant Hypertension doesn't happen often in the ED. It's always possible though. Dantrolene dosing is many large bottles.

Drawing repeat aliquots from a medication infusion bag? Don't risk sticking yourself when piercing the port, and make it clear that the bag is being used in a different way. Use the dispensing pin to pierce once.

#55 A sudden turn

Two staff members are "returning" a patient to his room for continuing psychiatric evaluation. He's not entirely cooperative, but not actively combative. What's going to happen at the door of the room?

Often, such patients may reach out and brace themselves against the doorway: "No, I don't want to go in there." It's a natural reaction to confinement and can be anticipated.

When the threesome approach the door, the two staffers should do a sudden about-face and march the patient through the doorway backwards. It is easier to resist entry in the forward direction as the elbows can be locked. By reversing through the doorway, it is harder to keep the arms in extension as they naturally would flex forward as the elbows cannot be locked. No resistance, no combat.

#56 Come along, Dear

Sometimes, patients will wander from where they should be and in confusion or unreasoning misapprehension be unwilling to return or be physically resistive to attempts to guide them.

In some instances, it may be necessary to guide with a view to protecting oneself or to keep the patient on course without the chance to inflict injury. Come alongside and slip your forearm between his and his body staying snug. Bring your hand full-length to his, laying your hand on top of his with your thumb underneath his wrist as a fulcrum. If need be, the hand can be flexed downwards over your

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thumb to apply control which can be concealed by the gentle covering of your other hand. His elbow and forearm are controlled under your own.

You are able to guide and steer. You can help support his weight in the event of weakness. You are protected from scratching and pulling, or a sudden turn of the body to land a “haymaker” upon you. Combativeness or refusal to move can be corrected with additional flexion of the trapped wrist. No injury need occur. And to all appearances you are giving kindly support and guidance.

Of course, any holds or restraint should be consistent with local law and institutional policies, in an organized program with training and authorization, for safety and avoiding injury. If a security program does not exist, planning should begin.

#57 With iron resolution

Iron tablets and supplements are radiopaque. An acute ingestion may be ruled in by a quick abdominal flat plate to visualize the quantity and progress of tablets in the GI system. Presentation may vary from a toddler with vitamin/iron tablets to a serious gesture with OTC bottles of iron.

You will want to contact your local [Poison Control Center](#): 1 (800) 222-1222.

Severity can be predicted by the dose of elemental iron ingested in mgs/kg. Serum levels follow an acute ingestion by 4-6 hours but do not have close clinical correlation.

Gastric upset, fluid shifts, shock, and liver toxicity are possible and multi-phasic. Corrosive effects can cause bleeding or perforated viscus. Vomitus or lavage effluent may have be rust color or bloody.

Treatment is supportive, and may include whole bowel irrigation and chelation therapy.

- [Life in the Fast Lane: Iron Overdose](#)
- [Royal Children's Hospital, Melbourne: Clinical Practice Guideline](#)
- Abhilash KP, Arul J J, Bala D. [Fatal overdose of iron tablets in adults.](#) Indian J Crit Care 2013;17:311-3.

58 Where's the bougie? Where's the glottis?

Did “somebody” forget to replace the bougie?

Is the ETT too blunt and floppy (even with a stylet inside) to navigate that Mallampati 3-4?

Is the viewpath too narrow? Do you need to “feel” your way, and lift that epiglottis?

When bougies were less common in the USA, anesthesiologists would use their laryngotracheal anesthesia cannula (a lidocaine spray) to identify and move glottal tissues gently, under direct vision, to gain entrance to the trachea. This can be done by grasping them together in parallel with the LTA going through the Murphy Eye from exterior to interior and protruding forward from the bevel by several centimeters. [[Rosenberg, et al](#); [Bourke](#); [Cahen](#)]

Due to perforation risk, the general rule when teaching novice intubators is to have nothing protrude beyond the tube. This is valid and appropriate for that stage of experience, but the ETT is bulky and obscures much of the view and lacks tactile sense or finesse. Many things have been used successfully to avoid obscuring the view: bougies, optical stylets or endoscopes, suction catheters, epidural catheters, and guidewires. Know the anatomy and guide by direct vision.

If you don't have an LTA cannula handy, you could substitute a smoothly-coated and tipped stylet in the same role of direct vision tactile assistance. [Stasiuk](#) describes a shortened ETT prepared with the inner stylet sometimes protruding when needed.

With any guide, if the ETT bevel holds up at the glottis, withdraw slightly to disengage it, rotate the tube 90° or 180° counter-clockwise to move the bevel to a more favorable angle, and gently re-pass.

#59 “Oh, by the way ... “

Every provider knows the phrase and implicit catch. Every provider inwardly thinks “Uh, oh, here it comes ... “

- Here's what they really want.
- Here's the add-on request.
- Here's the hidden agenda.
- Here's the complication they didn't mention.

When the patient seems preoccupied, things don't add up right, or the goal is unclear; strike early and elicit the issue.

- Is something else on your mind?
- What's really bothering?
- What do you want to have happen on this visit?
- Do you need a note for the Boss?
- Is there something else we should test for?

You may find

- It's a *different* problem.
- Seeks second opinion.
- Needed specialist won't take Medicaid.

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- Fear of pregnancy or STD.
- Freebie advice for self, other child, friend/
- Drug-seeking behavior. Rx refill, cough syrup.

You may be able to

- Redirect investigation to the correct issue.
- Adjust expectations.
- Provide outpatient referral.
- Eliminate unneeded testing or treatment.
- Prevent anaphylaxis.

With attention to body language and applied psychology, this is the moment for a verbal scalpel to excise the crux of the problem.

#60 It's a gas, under there ...

Unwell patients needing a sterile procedure done about the head and neck are draped, and monitored for SPO2 and ETCO2. The patient's exhalations can be trapped under the drape and in large quantity can confuse the accurate measure of ETCO2 (measuring both exhalation and trapped CO2) without an exhaust. It's also warm, stuffy, and claustrophobic, contributing to stress. Dr. Charles A. DeFrancesco, in ["Outpatient Surgery Magazine"](#), suggests using low continuous suction under the drape near the chest (thereby not lowering ETCO2 values).

If the patient's stable, but uncomfortable and annoyed by the fetid atmosphere under the drape, try lifting a corner with a Mayo stand or a clip corded over the surgical light boom, if these do not interfere. A fresh air supply from a fan, or the source of compressed medical air can be delivered through suction tubing (larger flow; less resistance, noise, and jetting) can be suitably pinned (to avoid movement of tube or drape) and refreshing.

#61 What is The One ... ?

In trying to bring order to chaos, my patients and I have benefitted from forcing upon myself the question (in minor variations):

- *"What is The One Thing that I must do next?"*
- *"What is The One Thing that I must not miss?"*
- *"What is The Worst Thing that could be going on?"*
- *"What is The One Test/Exam/Treatment that I must not miss?"*
- *"What is The One Question that I haven't asked, and must?"*
- *"What is the One Thing that will give me the essential or most information?"*
- *"What is The One most direct way to gain the fact?"*
- *"What is The One Next Thing that I need to do to keep this person alive?"*

Collected Clinical Tips from Advanced Emergency Nursing Journal, by The Editors.

In truth, of course, there may be not one but many. If I do the next “One”, prioritizing will bring things aright and focus increases clarity until all is resolved.

E.g., Medics report “COPD, with SOB & Cough”; patient directed to an acute bed; Severe Dyspnea on 100% NRB mask; Mask falls->dense cyanosis, extremis. Do next? [Mask restored.] Worst thing? Needed fact? Essential Question? “*Which came first? SOB, or Cough?*” [Cough.] Needed test? [Skip stethoscope, Skip CXR, Percuss chest->left side tympany. “*Move to Code Room!*” Do Chest Tube set-up.] Tension pneumothorax Dx’ed ~45 seconds. Chest tube set-up before pt. settled in Code Room. Outcome good.

62 A couple of points about takedown

When it comes time for the “Chemical Takedown” or tranquilization of combative and agitated patients, preparation should include planning, personnel, safety, and monitoring afterwards.

The pharmaceutical agents that you use may be incompatible in the same syringe. If so, the incompatible agent can be drawn into a separate syringe which is taped, rubber-banded, or held together for simultaneous injection. It will be felt as one injection (like divided doses to an infant). Limiting procedures improves safety.

Use a larger size syringe so that the piston stroke will be shorter (can be done one-handed with the thumb). My preference is a safety-shielded 20 gauge needle long-enough to reach deep muscle (to avoid “hubbing” the needle with possible breakage). Inject slowly with Z-track technique to ensure deposit. Usually either the vastus lateralis or ventrogluteal sites will be safe and accessible and a way from the action at the torso while the patient is under manual control of the team.

#63 Control that bulky tongue

Whether it’s tracheal or gastric intubation, or repairing an intraoral lesion, sometimes the tongue needs protrusion or control. Few EDs stock tongue clamps nor have staff skilled at wrapping the tongue with gauze by which to hold forward. Hemostats inflict crush injury.

A quick way is to use open end of suction tubing to grasp and pull the tongue. Avoid long use that might bruise*.

For desperate cases such as maxillofacial injuries, place a strong draw suture through the tip of the tongue. An old military field expedient to keep the airway open was to place a safety pin in the tongue and fasten by a rubber band to a shirt button.

*Koht, A; Randell, G. Tip. *The Airway Gazette –The Official Publication of the Society for Airway Management*. Vol 11, Issue 2. May 2007. [Society for Airway Management](#).

#64 What's the Tueller Rule? Why do I care?

As caring, helping, professionals, we tend to be warm, open, and trusting. Our sensibilities can get in the way of safety when we ask for handcuffs to be removed, or turn away from a prisoner. To our "clinical suspicion," we must add "situational awareness;" a safety term from law enforcement.

If a prisoner, patient, or visitor gives you safety concerns, what do you watch? The eyes, as taught by Hollywood? Psychopaths and skilled felons will give no clue. They are practiced in giving no indication of their lethal assault. Watch the hands. They are weapons and users of tools. Beware proximity to waistbands, pockets, lapels, hoods, groin, ankles, or your own instruments. Remember that the "friend" may be carrying the weapon.

Assault without warning will be faster than you think. It's known that a an assailant 21 feet away can close and stab a cop in 1.5" [—before a gun can be drawn and fired in response.](#) That's larger than most exam rooms.

Just as you observe for signs of escalation pre-takedown, observe the subject's body shifts for moving weight over axis and fulcrum searching to aid in push-off. Remember that rails, or you, can be hand-grabs; that rolling equipment can be pushed at you or swung at you. Trays in Mayo stands can be used as weapons, shields, or projectiles.

Respect your inner caution. Be aware, alert; do not be alone. Involve Security Professionals. Have an escape route. Have an alarm.

#65 Eyes in the back of the Tester's head

Have you noticed how often Snellen chart testing is inadequately done? The victim is left at the twenty foot line unobserved supposedly covering the eye with a hand, while the tester stands at the chart pointing like a schoolteacher and reading the answer.

Why do people cheat? Perhaps, a wish to "do well," or fear of loss of driving privilege, or to create a bogus claim.

The skillful tester stands with and facing the patient covering an eye with a card; staying the distance; recalling the most frequently used lines; requesting backwards reading to ward off guilty memorization (or use a children's chart or "illiterate E" chart). Discard the card or clean the occluder afterwards. Have a pinhole aperture available or punch the card with a needle if the patient's glasses are missing.

Watch the subject, not the chart.

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#66 Is your oral ETT too long?

Most endotracheal tubes sold in the USA are “Oronasal” length. There is manufacturing simplicity in having a dual-purpose length. In other countries, anesthetists will shorten the tube before use. In North American EM, the tube is left as is. Most intubations are oral, not nasal. A long tube favors Right Mainstem Bronchial insertion, and may obstruct if a heavy circuit is unsupported and bends the tube.

There is a rescue technique [Heath] for the hard-fought tube that is thought to be in the trachea, but the patient isn't responding well, and there is fear of esophageal intubation. The tube might be right; it might be wrong. You can fix oxygenation & ventilation without sacrificing the tube before you must do so.

A shorter tube allows fitting a BVM mask of suitable height and contour over the face and open end of the tube. Use a good two-handed Triple Airway Maneuver. Gas should go to lungs whether trachea or esophagus is tubed. A few breaths should correct the situation and allow time for careful verification of tube placement. As this is not a well-known technique, you should practice this on a mannequin, and discuss with your practice group. It is for brief rescue support only.

If esophageal placement is found, it's wise to leave it in place as a marker while intubating the trachea; but, there's no guarantee that the new tube won't pass parallel into the esophagus also. If stomach contents disgorge, the bad ETT can divert soiling of the airway. Use care. Verify the new tube.

Oxygenation & ventilation are always primary! Do what is necessary to save the patient. The usual answer: “*When in doubt, take it out!” will prevent the disaster of gastric ventilation. But, each attempt to tube traumatizes the airway more [Mort 2004]. Stabilize, inspect & verify; may save the tube, the patient, and the day.*

Cook, T. M., & MacDougall-Davis, S. R. (2012). [Complications and failure of airway management](#). British journal of anaesthesia, 109(suppl 1), i68-i85.

Heath, M.R. [CEMACH report: oesophageal intubation Br J Anaesth. 2005 Sep;95\(3\):426. PMID: 16076928](#)

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[Rogue Medic \(Blog\) Uneventful prolonged misdiagnosis of esophageal intubation](#) Thu, 25 Oct 2012

Collected Clinical Tips from Advanced Emergency Nursing Journal, by The Editors.

#67 The unkindest cut

Someone once wrote that the most significant prognosticator for a poor outcome or “badness” was to have one’s clothing cut off in the code room or trauma reception.

I certainly have wished for a laser-powered cutting tool between whose safety fingers everything from cashmere to motorcycle boots would be rent like the proverbial hot knife through butter.

Lacking this, most places haven’t moved past the “running the shears blade against tensioned fabric” stage.

A few have used the curved hook with reversed (single-edge razor) cutting blade such as are used for seat belts or by divers, which are inspired by the hunter’s ancient gut hook: to lift away, slide, and cut.

Some exuberantly cut everything: “I’m a *Trauma Nurse!*”

When clothing can be spared, the patient has something to wear home. Often, the key is to raise arms and wiggle the elbows out, then the garment can be peeled over the occiput postero-anteriorly as through a birth canal. Do all as controlled motions.

Anyone with an engineering background want to crowd-fund a laser-cutter?

#68 Now, you’ve stepped in it

You step into the room to do the pelvic. The patient has “undressed completely” and is barefoot. Metal stirrups aren’t fun. Put shoe covers over them for comfort and cleanliness.

Some staff sanitize their entire environment at shift start. Some codes are messy. Slip a shoe cover over the telephone handset to minimize inadvertent contamination.

Those short plastic armrests on your chair are an unfriendly surface. Shoe covers slip on and make them less skiddy and elbow comfy.

They’re good for those oily spots in the parking area, and for those quick trips into the house while doing yard work.

Shoe cover your shoes in the suitcase. Other things stay clean, and you can still put small items inside the shoe.

#69 Nearly a Sleep Lab

Emergency clinicians would dearly like to avoid the burden of “primary care” problems that come to them. There are unavoidable areas of overlap for which we are ideally placed to recognize and act upon matters not found in the usual office visit. What we do can be key to managing disease and preventing future health catastrophes. Alertness for potential Obstructive Sleep Apnea should always be part of our assessments.

Extended LOS is common. Our patients are exhausted and medicated in an environment of airway-trained staff and physiological monitoring. Visitors may be sleep witnesses. Clues may be dropped as to difficulty of regulating blood pressure, poor sleep quality, “wake up still tired,” sleeping in a chair, mood changes, inappropriate sleepiness, or near accidents.

There is probably no better place for detection and discussion of Obstructive Sleep Apnea than the E.D. Do you have a “possible sleep apnea” discharge instruction and referral template?

“Hi, it’s good to see you again. I got that sleep study that you mentioned. I’m now on CPAP, and my life and health have turned around! Thank you.”

[STOP-BANG Questionnaire](#)

Chung, F., Subramanyam, R., Liao, P., Sasaki, E., Shapiro, C., & Sun, Y. (2012). [High STOP-Bang score indicates a high probability of obstructive sleep apnoea](#). British journal of anaesthesia, 108(5), 768-775.

Vasu, T. S., Doghramji, K., Cavallazzi, R., Grewal, R., Hirani, A., Leiby, B., ... & Witkowski, T. (2010). [Obstructive sleep apnea syndrome and postoperative complications: clinical use of the STOP-BANG questionnaire](#). Archives of Otolaryngology–Head & Neck Surgery, 136(10), 1020-1024.

Chung, F., Yang, Y., & Liao, P. (2013). [Predictive performance of the STOP-Bang score for identifying obstructive sleep apnea in obese patients](#). Obesity surgery, 23(12), 2050-2057.

[Berlin Questionnaire](#)

[American Thoracic Society on Berlin Questionnaire](#)

Vearrier, D., Phillips, B., & Greenberg, M. I. (2011). [Addressing obstructive sleep apnea in the emergency department](#). The Journal of emergency medicine, 41(6), 728-740.

#70 What’s in your trunk?

The prudent emergency person who sets out upon a journey knows that nothing is guaranteed, and being self-reliant brings supplies and provisions for unexpected necessity.

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For many people, “a first aid kit in the car” is a plastic box with band-aids® and aspirin. In the dark, bad weather, overturned, or at the roadside, you may need more, in addition to your trauma supplies.

See what you're doing: Consider head-mounted lights for hands-free work, or a set-down lantern; a long distance flashlight is good to check for ejectees or nearby help.

Be seen/don't be hurt: a safety vest, light colored clothing (and never turn your back on traffic) is good. Clothing appropriate to weather (not the car's heater/AC). Nitrile gloves for patient contact. Leather work gloves, safety glasses. A window-breaking, seat belt cutter tool may be useful.

Advance warning: Safety triangles don't have dead batteries, or start fires. A magnetic base lets you place it on your rooftop for longer visibility, Use two sets, and place them far out to slow traffic (1 car-length for each 10 mph of speed; and before blind bends/summits. Flares/Fusees are great (night & fog), but can ignite gasoline or dry brush. Flashing LED lights alert well.

Shelter/Casualty care: Sturdy tarpaulin as a working surface; shade; rain protection; safely drag casualty to safety; and prevent blankets from soaking. Disposable blankets.

Rural areas: Cell phone; signaling devices; water and food (not chips). “Flight Plan” with family: “If you don't hear from me by __, call for help. I'll be on route 29 and will call any changes to you.” If stranded, “I'll try calling every even hour for 5 minutes (to save battery).”

#71 Move it out

Is that wood sliver, or spicule of glass, just beneath the surface with nothing to grab or scrape? Don't really want to cut down to it? Try applying the open end of the suction tubing to the wound, to possibly move it upwards. Even if you must cut, the effort will be noted.

Likewise, it may aid the removal of a spheroid bead in the naris that won't move with blowing of the nose.

Sometimes, that nasal FB can be eased out with a small pediatric Foley or Fogarty catheter {breaking the seal} inserted past it (after a decongestant spray), inflated, and gentle traction applied. Likewise, gentle use of a plastic ear curette might help unseat the FB.

#72 The Epi Drip – when needed fast!

This tip is a guest appearance, from a respected [colleague](#), first posted in 2013 on the blog [ALiEM Academic Life in Emergency Medicine](#). It's not a “Dirty Epi Drip”

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like a “dirty martini” but lets you hasten to effective life-saving therapy in anaphylaxis and other crises. Go to:

[The Dirty Epi Drip: IV Epinephrine When You Need It](#)

It's my opinion that administration errors in giving Epinephrine injections or bolus doses is due to verbal/cognitive fixation upon “classic” dosage style stating a volume of a dilution ratio, rather than focusing upon the dose weight of drug to be given, compounded by decimal-point errors causing 10:1 dosage errors. Typically, the order is “0.3 mls or 0.3 mgms of 1:1000 Epinephrine (subcutaneous)” or IM. IM is to be preferred in anaphylaxis with crashing vital signs when IV access is not yet available.

How much clearer it is to say “Give 300 mcgs of Epinephrine, 1:1000, IM” instead! Focus upon the dose; do not fractionate the unit; use whole integers instead, and much confusion and error is avoided. Emphasize route. Have order told back to you. Clarity in communication is key.

Remember that, in a shock state without an IV, (perhaps waiting for the I/O kit), you can pull the tongue tip “up and out” and using a small short-bevel needle, inject intraglossally into the lateral muscles avoiding blood vessels for near IV speed. In anesthesia, a measure for trismus/laryngospasm with inability to ventilate, and no IV, is to make a sub-mental injection of neuromuscular blocker into that location.

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Collected Clinical Tips from Advanced Emergency Nursing Journal, by The Editors.

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Visvanathan, T., Kluger, M. T., Webb, R. K., & Westhorpe, R. N. (2005). [Crisis management during anaesthesia: laryngospasm](#). Quality and Safety in Health Care, 14(3), e3-e3.

#73 Fire

Emergency Nursing and the fire services share the month of October as their celebratory event: [National Fire Prevention Week](#) sponsored by the [National Fire Prevention Association](#) which invokes the [Great Chicago Fire](#) and the nearly-forgotten [Peshtigo, Wisconsin Wildfire](#) and [Emergency Nurses Day & Week](#). October is also American Pharmacist Month and other health related observances.

Most of us worry about potential fire in our home and make a modicum of preparation such as smoke detectors (*Are the batteries in your smoke and carbon monoxide detectors fresh?*) or how to get the children out (*Have you met [E.D.I.T.H. \(Exit Drills In The Home\)?](#)*).

I've often said *there are three places I never want to be in:*

1. a ship (or airplane),
2. a hospital,
3. a hotel (tall building)

that is on fire!

Each of these has problems of evacuation and rescue, and is an isolated place wherein one's survival is dependent on the efficiency and preparedness of those who operate it.

- In hospital fire safety training, you have probably learned [R.A.C.E.](#) and [P.A.S.S.](#)
- Are you as prepared in your home, the hotel, the ship?
- Do you choose a low floor (within reach of an aerial ladder)?
Is there a building extension that would keep that ladder from coming close?
- Do you check the fire exits and stairs, alarms, extinguisher and hose?
- Do you look for Public Access Defibrillators?
- Do you report any inappropriately locked/chained exits?
- Do you prepare to escape? Subsist for days?
Lay out your needs the same each night:
 - eyeglasses
 - warm, sturdy clothing/shoes (*not* slippers; glass, debris)
 - powerful flashlight,
 - cell phone,
 - wallet/keys (ID, credit cards, cash) *in case you never can go back.*



#74 Critical Activities

Typically, Registration provides one wrist band and many bar-code labels. Often, during active resuscitation, the band is sacrificed when in the way of a procedure; *now* comes the call from CT/IR/OR, until wristbands are ready, slap a bar-code sticker on the forehead where it can't be missed, or accessible ankles. It is critical for the patient to be labeled.

As the patient leaves, consider having bilateral wrist bands to facilitate "Time Out" in those areas with different lay-out and access to the patient: *e.g.*, Stroke Lab on the left, Cardiac Cath on the right, O.R. contralateral to operative site. Consider PIV site placement similarly.

Prolonged Resuscitation coming in from the Field? Blunt Trauma Arrest? Odds, are, well ... Consider placing the body bag before arrival (a sheet can conceal). This does *not* show lack of intent to resuscitate, nor conceding defeat before arrival, but, a practical protection of everyone's back, confining of forensic debris, containment of liquids, *etc.* The strength of it may also aid in lateral transfers.

#75 What did you eat today?

In the fast-paced ED, we try to avoid the mundane and banal in the patient's life; yet, sometimes therein lies the essential clue. Consider ...

- The hypoglycemic patient who had taken insulin but skipped breakfast.
- Planning RSI airway management in a full-stomach patient.
- The unexplained hyperkalemia in a well person who has spent three days consuming jars of guacamole and salsa from the big-box store.

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- The youthful hiker with ascending paralysis who paused to eat a [pale wild carrot](#) and learned what happened to [Socrates](#).
- The [newly immigrated family](#) who foraged for mushrooms and became ill when they found *Amanita phalloides*.
- The CHF'er or Cholecystitis patient who you will probably see at Thanksgiving.
- The [Trichinosis](#) victims who had hunted and eaten bear meat (that was undercooked).
- The seafood-eating tourist who comes down with [scombroid](#) or [ciguatera](#) poisoning.
- Considering [food-borne Botulism](#) in the differential diagnosis of weakness, diplopia, and ptosis.
- Gastrointestinal illness with [fecal-oral transmission](#). [The Four "F"s: food, fingers, feces, flies.]



"Death of Socrates" by Jacques-Louis David

76 If the nose knows

Claudius: Where is Polonius?

Hamlet: In heaven; send thither to see. If your messenger find him not there, seek him i' the other place yourself. But, indeed, if you find him not within this month, you shall nose him as you go up the stairs into the lobby.

[Hamlet: Act IV, scene iii](#)

Eyes, ears, and touch are the senses most used in diagnosis; smell less often, but of [distinct value](#). When you smell [melena](#) from the [door of the ED](#), you know what you're in for.

It may not be as dramatic as a [fungating](#) necrotic uterine mass, it may be as simple as "good pee" vs "bad pee."

Dramatists love to show an astute diagnosis with "the odor of bitter almonds" [[cyanide](#)]; but it isn't smelled by everyone.

Ever-popular [Ethanol](#) is nearly odorless, but clinicians [detect its flavorants commonly](#). Tobacco breath, Cannabis aroma, sodden incontinence of the unwashed are frequent.

Discerning perception varies among people. We all learned of ketotic breath in [DKA](#), yet I don't think that I've noted it. Colleagues have noted "that [pseudomonas smell](#)" or "it smells like [C. diff](#)." Dogs are known to sniff bombs, drugs, cadavers, the dying, [and infections](#). [Attempts are being made](#) to mechanize the process. TSA checks for explosives residues/evaporants with chemical sniffing pads.

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Ready dialysis has made [uremic breath](#) uncommon. [Foetor Hepaticus](#) can be found in hepatic encephalopathy and late liver failure.

A patient's [anosmia](#) can be a sign of sinus infection or tumor. Some patients have hallucinatory [phantosmia](#).

As my grandmother said, "Never go swimming in [asparagus](#) season."

77 What if? drills during slack time

*For want of a nail the shoe was lost;
For want of a shoe the horse was lost;
For want of a horse the battle was lost;
For the failure of battle the kingdom was lost—
All for the want of a horse-shoe nail.*

Proverb

EDs are complex environments with many individual pieces of technical equipment. Last night, the Slit Lamp wouldn't turn on. Switches & cords were checked, the bulb removed and a spare sought. General confusion. Patient anxiety increasing and confidence decreasing.

The outlet didn't have a pilot light to show it was working. The other cord was to the EENT chair; tested, it didn't work. Reset the [Ground Fault Circuit Interrupter](#) in the outlet (within six feet of sink), and [all is well](#). A Slit Lamp should also have a dust cover to protect the lenses and reflecting surfaces.

Until something goes wrong, there is often little attention paid to spares, user's manuals, and troubleshooting skills especially for equipment not commonly used by nursing staff.

Always have a few "projects" in mind for those occasional slack times, to practice "what ifs", teambuilding, and troubleshooting of special equipment. Call a huddle, have some practice. Teach nurses, techs, and aides, how to use the equipment and do the exam, so that they can anticipate your needs, help newer staff who may not have been completely in-serviced on the equipment, and to be able to swiftly resolve issues. The end result will be a confident and cohesive team, self-reliant and problem-solving, who enjoy working with each other. Isn't this a great goal?

By the way, do you know how to field-strip and fix a faulty bag-valve-mask resuscitator? Sure, sometimes, "get me another one" is the right thing; but comprehensive understanding and problem resolution helps in the long run or to determine whether error or defect is the problem.

(The most common reason for the bulb in a slit lamp to actually fail is that the previous user did not shut it off and it burned out.)

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78 “What the MIF?” ...

Evaluating neuromuscular disease? Are you concerned for respiratory failure? Check the "MIF" (Maximal Inspiratory Force) and check it often. Whether the patient can generate an adequate and sustained Maximal Inspiratory Flow is a marker for failure and the need for prompt intubation. If the value or trend is poor, intubate before the crisis.

PEFR may not be as useful, as it is in obstructive airway disease. Expiration is a relatively easy effort being partly passive not needing great muscular assist. The patient will compensate for failing effort with shallower breaths more frequently, thus SPO2 will not decline until a critical failure. Respiratory Rate will gradually increase, and the astute observer must count accurately, frequently, and observe the effort exerted; however, RR, so useful, is often the VS that is sloppy or guesstimated. As the patient also decreases all voluntary effort, and therefore O2 Demand, decreasing compensation is subtle. ETCO2 capnography can be useful, but clinical suspicion is key.

When calling “Respiratory”, say specifically that you need a “MIF” (not just a PEFR, or incentive spirometry; portable “loop” spirometry may be useful; but MIF is the value needed).

Moxham, J. M.D. [Tests of respiratory muscle strength](#). UptoDate® ©2014 UpToDate, Inc.

Oppenheimer, E.A. , MD, FCCP [Oxygen is NOT for Hypoventilation in Neuromuscular Disease](#)
Reprinted from IVUN News, Spring, 2000, Vol. 14, No. 1 The International Ventilator Users Network
[Greater Boston Post-Polio Association](#) website.

[RESPIRATORY FAILURE: Early or Selective](#) from [Washington University: Neuromuscular Disease Center](#); St. Louis, MO. 3/26/14

Katyal, P., MBBS, MSHI & Gajic, O., MD [Pathophysiology of Respiratory Failure and Use of Mechanical Ventilation](#) [pdf of ppt] Mayo Clinic, Rochester, MN, USA

[Neuromuscular Failure Right Diagnosis™](#) from healthgrades™ Copyright © 2014 Health Grades Inc. All rights reserved. Last Update: 17 June, 2014 (0:29)

79 The Name Game (*Bonana fana*)

[Medical eponyms](#) are a fascinating study, giving savor and appreciation to history, often a convenient nickname for a complex diagnostic description, and a fecund source of pinging material for juniors.

When parent’s bring in their child, naming a rare eponym (which they expect me to know as well as the erudite sub-specialist they seek), I’ve resorted to [Eponyms by](#)

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[Ossus GmbH](#) on my phone to quickly clarify the definition. A delightful website that I've used for background reference and impromptu teaching is [WhoNamedIt.com](#).

Oh, and don't wait for the results to come back on [Cloquet's Needle Test](#) before acting.

[Occupational Medicine](#) variations:

[Sherlock Holmes](#), and his real-life model: [Dr. Joseph Bell of Edinburgh](#), could discern occupation by observation of typical injuries or "callosities" –probably more difficult now with fewer manual trades and greater life mobility.

Why do hats have a little bow upon the inner hatband? In memory of the "Mad Hatters" who became so from felting with Mercury.

[Black Lung Disease](#) or Coal Miner's Lung.

[Chauffeur's Fracture](#) or Backfire Fracture is a Radial Styloid Fracture as in crank-started automobiles.

[Chimney Sweep's Carcinoma, or Soot wart, first recognized in 1775](#), became compensable with [Bismarck's](#) reforms in the 1880s.

"Jogger's heel" = [Plantar Fasciitis](#), not to be confused with "Policeman's heel" = [Plantar calcaneal bursitis](#).

"[Nightstick Fracture](#)" is the defense injury to the ulna of warding off blows with upraised arms.

"Oyster Shucker's Palm" is what I call the laceration resulting from inattentive or awkward use of an oyster knife by seafood workers. [\[Blog with recipe and tips\]](#)

Plumbism = Lead Poisoning, from plumbing with lead pipes (Pb).

[Woolsorter's Disease](#) = anthrax.

80 Hand Position for the Intubator's Assistant

Cricoid pressure is performed to occlude the esophagus of the unconscious patient to minimize the chance of silent regurgitation from being aspirated into the lung before the trachea can be sealed with a tube having an inflated balloon cuff. This is not an absolute guarantee of success, and the pressure can impede glottic visualization, passage of a tube, or occlude the *airway*.

If "cricoid pressure" is desired, the assistant should be on the patient's right facing the head and observing all airway activity. The cricoid cartilage should be grasped with the thumb proximal on the right lateral aspect, the long finger distal on the left

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lateral aspect, and the tip of the pointer finger identifying and indenting the cricothyroid membrane space. This indexes the hand centrally for direct posterior pressure, and keeps note of the CTM location in case of emergency. The tip of the ring finger trails caudally to locate the midline of the anterior trachea. The skilled assistant feels the anterior trachea and senses the ETT moving below.

To improve the glottic view, it is the thyroid cartilage that is manipulated to depress the "anterior larynx", whereas cricoid pressure further elevates the glottis. The assistant should ask "Do you need thyroid pressure?" before shifting his hand position. The Intubator may simply move the assistant's hand to optimal position and say "Hold it right there." If the assistant moves his own hand, the pointer finger seeks the anterior superior central notch of the thyroid cartilage, then moves the first & third fingers to their lateral positions. This avoids misplacement onto the hyoid bone.

Useful tasks include keeping the suction tip ready and not falling to the floor; holding ETTs; or increasing oral space by POCPOM [Pull Out Cheek, and downwards; Push On Maxilla]. {c.f., [photo here](#).}

81 'Tis The Season

Do you have an Elder for whom you care? Chances are, you do. Since Mid-Winter traditionally looks forward, and the New Year comes soon, it's a good time to do planning and gifts for maintaining health.

It isn't always easy to remind elders of failings or future incapacities; they are mindful and fearful of it. If you live a distance away, it's harder. Your regular clientele may readily accept your wisdom, but your parent may start to think of you as a *smart-alecky kid trying to take over*. But, if begun early and lovingly, it may be easier to make changes.

Devices:

Blood pressure monitor.

Glucometer.

Pulse Oximeter, PEFR meter, to weigh illness.

CPAP, if Sleep Apnea, now that it's harder to lose weight.

Active Prevention & Adaptation:

Exercise classes, for balance & movement; fall prevention & strength.

Tripod or Quad Cane; Walker;

Hallway/Bathroom Grab Rails.

Disease Self-Management classes.

Improve lighting, fix loose carpets, handrails.

Vision exam; cataract surgery?

Discuss when to take away car keys.

Transport services or ParaTransit.

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Socialization:

Visiting. Travel, as able.
Encourage joining groups; new hobbies.
Include in family activities & gatherings.
Grandchildren to visit, as tolerated.
Live-In Companion or visitor.
Consider "active senior community."

Alerts & Services:

Simple cell phone, large keys.
Telephones, large keys or pictures.
[MedicAlert®](#) emergency medical ID.
Thumb Drive pendent with medical records.
[Meals-On-Wheels.](#)

Affairs in Order:

Financial Planning.
Will or Trust.
POLST & Advanced Directive.
Nominate Decision Maker.
Plan Organ Donation.
Plan for Disability,
Death and funeral planning.

82 Hands on; Hands in

For an intellectual occupation, our use of hands still define who we are, our relationships, what we do, and the satisfaction therefrom derived.

Far too many patients have become accustomed to the "professional" handshake: the limp-fish palm touch, or the too crisp and brief handshake while moving inwards to the room. Especially with the apprehensive, withdrawn, or very ill, linger the firm grasp a bit more, while directly engaging: "How may I *help you?*" or "I'm here to help."

We derive internal satisfaction from the manual task that is well-performed; but sometimes, the hands are the *best* way to do the job: e.g., the [Triple Airway Maneuver](#); the [tension pneumothorax](#) deflated, the deftly swift [cricothyrotomy](#) that averts catastrophe.

The Triple Airway Maneuver is the best uninstrumented immediate method of opening the collapsed or obstructed airway.

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Most cannulae are too short, or likely to kink, or poorly inserted to relieve tension pneumothorax reliably, and less certain of perforating pleura without perforating lung.

Cricothyrotomy is most swiftly done with fewest tools and less likelihood of dangerous non-endotracheal placement of the tube when one uses "Scalpel, Finger, Bougie" to ID and railroad the trachea.

Give these authors, and your patients, a hand!

Defalque, R. J., & Wright, A. J. (2003). [Who invented the "jaw thrust"?](#). *Anesthesiology*, 99(6), 1463-1464.

Isono, S. (2008). [One hand, two hands, or no hands for maximizing airway maneuvers?](#). *Anesthesiology*, 109(4), 576-577.

Heard, A.M.B. [Scalpel Bougie](#) [CICO Airway Management - Percutaneous Emergency Oxygenation Techniques] [youtube.com](#) Dec 16, 2013

Weingart, S. [Podcast 053 – Needle vs. Knife: Part I Needle or the Knife for the Cricothyrotomy](#) [EMCrit Blog](#)

Reid, C. ["Open thoracostomy"](#) [RESUS.ME Blog](#) January 22, 2011

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Nickson, C. [Finger Thoracostomy](#) ["Life In the Fastlane](#) Blog

Karrer, A. LP *et al.* [Simple Thoracostomy: Moving Beyond Needle Decompression in Traumatic Cardiac Arrest](#) *JEMS* April 2014.

"Frank F." [Finger Thoracostomy Video](#) Vimeo.com 2014.

Brohi, K. ["simple thoracostomy = NO needles \(just a finger\)"](#) Trauma List Archive. 2004.

["Finger Thoracostomy"](#) ["Taming the SRU - Emergency Medicine Tamed"](#) Blog March 01, 2014.

Due to holidays last week, the Tips were not published.

Here they are with this week's Tips also.

83 Tips from the #FOAMed and blogged world

Meet [Professor Simon Carley](#) via [ALiEM](#) (Academic Life in Emergency Medicine): *Working Smarter* (Brilliant!); don't miss the Ring Tip (Bloody Brilliant!).

Dr Lauren Westafer in ["The Short Coat"](#) reminds us ["Don't Trust Your Patient's Med List."](#) She also provides some great #FOAM/Blog tips in ["21st Century Textbook - Navigating EM Blogs As a Med Student."](#)

Dr Tim Leeuwenburg from Kangaroo Island, AU, [gives a video on converting a 20 ga PIV to a Rapid Infusion Catheter®](#) He also embeds some presentations on ["Resus Room Feng Shui"](#) and controlling Resus Room dynamics (Dr Cliff Reid)..

Dr Andy Neil from [Emergency Medicine Ireland](#) provides some updated tips on ["Keeping track of current literature."](#)

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84 Today's slice of life Tips (12/29/2014)

Today, [Manpreet Singh](#), from Harbor-UCLA, presents a very nice infographic and blog to organize your approach to [The Hypotensive ED Patient: A Sequential Systematic Approach](#) on [emDocs](#). See, also, his other article on [Ventricular Assist Device Management](#).

Also today, [ALiEM](#) has another case in its series "*Ultrasound for the Win*": [US4TW Case: 28F with Shortness of Breath](#) showing the exceptional life-saving value of sono. *c.f.*, the [linked other case](#).

[Emergency Medicine Literature of Note](#) suggests that in Hepatic Encephalopathy "*Just Poop, It Doesn't Matter How*."

[Life in the Fast Lane](#) gives its [162nd LITFL Review](#) of literature with a typical cornucopia of useful findings reviewed.