

# Lapsus linguae: a fatigue warning in any language

**Linos and colleagues** present a compilation of embarrassing doctor fails—from inappropriate I love yous to forgetting how a phone works

As doctors have become more comfortable and active on social media, they are sharing stories about personal experiences. This has led to posts of unexpected hilarity. A recent post on Physician Moms Group (<https://mymgm.com/>), a large online forum for practising doctors who are also mothers, related a deeply embarrassing moment (top far right).

Within hours, the post had received over 2200 likes and 235 responses, including several suggestions of ways the original poster could have quickly recovered from this situation and an outpouring of others' embarrassing work related blunders.

From this and similar posts by doctors on Facebook and Twitter, we gathered several key examples of physician "fails."



## Inappropriate use of terms of affection

Multiple comments described stories of a doctor using terms of affection in inappropriate situations.

"On about hour 32 of my shift, I left a message for a colleague, and at the end of it said 'love you' ... he had a good laugh."

"I've said 'love you' at the end of calling in refills to the pharmacy."

"I called a colleague yesterday with an update on a mutual patient. When he picked up the call, I started the conversation with, 'hey sweetheart, it's me ...' Luckily he had a good sense of humour!"

"Called the surgery resident for a consult. I was getting off a 30 hour call. Said 'bye, love you.' So embarrassing."

"I totally told a patient 'bye, love you!' Right after I told her she had chlamydia."

## "Discordant physical exam instructions

Errors with physical exam instructions were more common than history taking mistakes.

"In the finger nose test for my neuro exam I have said 'take your finger and touch my nose' instead of 'touch your nose'."

"More than once, I've said 'I'm going to look in your nose,' and then proceeded to do an ear exam."

"ObGyn. I'm guilty of asking patients to put their feet above their head (instead of arms) so I can do a breast exam."

"My colleague once put a speculum in for a pap exam and told patient to say 'Ahhh'."

"As I was leaving an exam room I told a middle aged guy to remove his pants and





that I would be back with my magnifier (dermatology). He said ‘wow that’s not something that you want to hear from a woman.’ We both couldn’t stop laughing for the rest of the visit.”

### Knock knock... nobody's there

Knocking on doors unnecessarily was a common theme.

“Sometimes I knock on patient room doors as I exit.”

“I was so tired the other day that I knocked on my own office door before walking in to sit at my desk.”

“I knock on the bathroom door to walk out.”

“I’m hospice, and I sometimes get asked to go confirm death on a patient with no family present before they call family to inform. I knock on the door...”

### History taking 101

History taking blunders included questions showing that the doctor hadn’t registered previous relevant medical information.

“*Doctor*: ‘Do you smoke?’ *Patient*: ‘No.’ *Doctor*: ‘How many cigarettes?’”

“Did you ever drink tobacco or smoke alcohol?”

“I’ve asked someone if ‘diarrhoea runs in your family?’ I meant to say diabetes... I was a tired new resident and it was late.”

“I once asked a blind man if he was sleepy when he was driving.”

“Have you ever committed suicide in the past?”

I just put the stethoscope on a mans back and instead of saying "deep breath" I said "hello" like I was answering the phone. 🤔😬😬

👍👍👍 You, Hala Sabry-Elnaggar, Helen Xenos and 2.2K others 235 Comments

“*Doctor*: ‘Are you having regular periods?’  
*Patient*: “No, Dr. You took my uterus out five years ago.”

### Communication challenges. Period

Communication problems were a major source of embarrassment and often involved speaking with dictated punctuation.

“Called an attending 4 am to staff an OB triage. ‘24yo G1P0. Period, new paragraph.’ I was dictating my note to a live person in the middle of the night. She told me to send the patient home and go to sleep.”

“Does anyone end a phone call with ‘end of dictation’? Yeah me neither.”

“I left a voice mail message yesterday with all the punctuations, comma and period.”

“To a prisoner patient, as I finish the visit, ‘Ok, you’re a free man.’ [pause–blank stares at each other and guards] ‘Ok, well, not really.’”

“One time I went to the waiting room to get a patient and instead of calling his name I called out his medical record number.”

“I went to Subway for a sandwich and instead of saying, “lettuce, tomato...” I started listing out the risks of surgery, “bleeding, infection...”

“I was prescribing Cialis for a patient with erectile dysfunction and told him to get the 5 mg daily free trial because it was more ‘bang for your buck.’ Thank goodness he laughed.”

“I have a small yellow duck attached to my stethoscope, and kids love it. I was showing it to a Spanish speaking girl about 3yo. I really thought I remembered how to say duck in Spanish, so I showed the duck to her and said ‘Look–puta!’ [which means whore]”

“I got tongue tied while talking to a patient. I was trying to say, ‘I have a lot of success using x medication.’ But instead I said ‘I have a lot of sex.’”

### Technology fails

Failed interactions with technology and wardrobe were common themes and included trying to use calculators to make phone calls, trying to use computers as touch screens, dictating into travel mugs, and trying to use ID cards to unlock cars.

“I tried to unlock my car with my badge the other day.”

“I tried to use my desktop screen as a touch screen like my cell phone and couldn’t figure out why it wouldn’t work.”

“I try to use the calculator on my phone to make phone calls, takes me forever to figure out why the hell it’s not ringing on the other end.”

“*In the Starbucks drive through. Doctor*: ‘This is Dr X. I was paged.’ [Long pause] *Speaker*: ‘Would you like to order?’”

“I’ve called my own cell phone from work thinking I was calling my husband. On seeing the hospital caller ID on my cell, I picked up saying ‘Dr X, hello? Hello?’ then getting annoyed that no one was answering. It took me about a minute to realise.”

### Conclusions

Although some of these stories made us laugh out loud, we note that many were attributed to fatigue or long work hours. Doctor fatigue is no laughing matter. Fatigue poses risks to patients, as medical mistakes are more common when doctors are tired. In addition, doctors who work longer hours have higher rates of burnout, depression, and car crashes. In response to these concerns, both the US Accreditation Council on General Medical Education and the European Working Time Directive have imposed restrictions on the number of work hours for doctors in training.

This piece affirms that doctors are human too. Thanks to social media, we can appreciate how often the healthcare setting—with its high workload and high volume, intimate contact with the public—provides ample opportunity for absurd or embarrassing interactions. For those shaking off their latest awkward hospital moment, take heart: we’ve all been there.

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# George Man Burrows and the anguished birth of general practice

Stephen Gillam delves into the history of a man sometimes lauded as the father of general practice

“**A**nd it is the business of the judges (the Court of Assistants), so to construe the Act, as to suppress the mischief and advance the remedy.” Thus, quoting Judge Blackstone and with a characteristic flourish, did George Man Burrows conclude *A Statement of Circumstances Connected with the Apothecaries’ Act, and its Administration*. Published in 1817, this intriguing document provides insights into the history of general practice that resonate today.

Burrows is now chiefly remembered as an expert on insanity. He has been strangely neglected for someone revered as the “father of general practice.” Why does he merit such claims? To what mischief does he refer, and what were his remedies?

## Rise of the surgeon-apothecary

Before 1800, there was not one medical profession but three. The physicians, members of a learned profession, dealt with internal disorders. Surgeons were craftsmen whose sphere was still largely external. Apothecaries were tradesmen who dispensed physician’s prescriptions until they won the right to visit, advise, and prescribe. This well known tripartite division conceals the extent to which their respective practices overlapped with each other—and those of many untrained “irregulars.”

The rise of the surgeon-apothecary in the 18th century was in large measure driven by economic expediency. Most surgeons practised physic and pharmacy to survive, whereas apothecaries frequently undertook simple surgical procedures. Across the country in small towns and villages, most medical men—however they styled themselves—were undertaking much the same kind of general practice, involving all branches of medicine.

Burrows was born at Chalk, near Gravesend, Kent in 1771. Educated at the King’s School, Canterbury, he was then apprenticed to an apothecary in Rochester before completing his medical education at Guy’s and St Thomas’ hospitals. He entered general practice in London where



WELLCOME COLLECTION

**In 1812, Burrows became the first chair of the Association of Apothecaries, which was formed to improve the education and status of the profession**

he became deeply embroiled in political disputes over the future legal status of the medical profession.

A striking feature of the surviving accounts and workbooks of proto-GPs is the vast quantities of medicines dispensed and their

financial dependence on prescribing. The first association to properly tackle the needs of GPs was founded at a meeting in the Crown and Anchor on The Strand on 3 July 1812. A protest had been called in response to a rise in tax on glass by which apothecaries

had been hard hit. A new Association of Apothecaries and Surgeon-Apothecaries of England and Wales was proposed. Its object was to improve the education and status of the profession. Burrows accepted the chair reluctantly, later writing that he would have declined had he known the work involved.

The growth of the association reflected changing attitudes among rank and file practitioners. The surgeon-apothecaries of the 18th century—individual entrepreneurs with no particular corporate allegiance—were morphing into a more self confident profession with a growing sense of collective identity and determination to reform.

### Apothecaries Act

With great perseverance Burrows led the production of a bill that combined idealism and self interest. The association's aims were, firstly, improved training and examination based on a broad curriculum and, secondly, a licensing process that clearly distinguished irregular practitioners from the genuinely educated. It proposed that future GPs be examined and licensed by a "fourth body," that they be required to hold a diploma from the Royal College of Surgeons, and that a new London based school of medicine be founded for their training. In this manner, the surgeon-apothecary would gain legal status as a generalist licensed in medicine, surgery, and midwifery, and unlicensed practitioners would be liable to prosecution.

The idea of a fourth body (or College of General Practitioners) was anathema to the other colleges and duly suppressed. The association had originally intended to provide its nucleus. Instead, the College of Physicians re-opened negotiations on condition that key responsibilities were handed to the Society of Apothecaries. As a representative association, the society was ill equipped to oversee the training of future GPs. Burrows nevertheless thought that concessions were necessary if progress was not to be deferred indefinitely.

The Apothecaries Act was eventually passed by the House of Commons on 11 July 1815. The Society of Apothecaries was to be responsible for the examination and licensing of future GPs and for prosecuting the unlicensed. Candidates for the Licence of the Society of Apothecaries were required to have spent six months at a recognised hospital or dispensary. Membership of the Royal Society of Surgeons was not compulsory, but the diploma was so frequently taken that the dual qualification MRCS LSA (colloquially known as "college and hall") became a hallmark.

Appointed to the first Court of Examiners, Burrows was astonished to find that many of those elected knew nothing of the act. Over the next year his usual patience and diplomacy deserted him. Early in 1817, after a protracted dispute with his colleagues, he resigned in bitter disillusionment.

Retiring from general practice, Burrows devoted himself to the treatment of the insane, keeping asylums in Chelsea, then Clapham. He became a leading authority, publishing several treatises on insanity. His *Commentaries on the Causes, Forms, Symptoms, and Treatment, Moral and Medical, of Insanity* (1828) received widespread acclaim as the most complete and practical guide yet published in this country. Burrows was made a fellow of the Royal College of Physicians (ironically) in 1839. He died on 29 October 1846.

### Landmark reform or degrading compromise?

Was the Apothecaries Act among the great reforms of the 19th century or a degrading compromise in the face of reactionary opposition from the colleges of physicians and surgeons? Medical historians are divided. Certainly, few GPs were satisfied with the outcome, and the association lived on until 1827, specifically to introduce amendments to the act.

As for the much maligned Society of Apothecaries, reformed committees went on to manage examinations efficiently enough.

By the 1840s, GPs formed over 80% of the profession, but overcrowding was detrimentally affecting their income. They alone had no college or institution to defend their interests. With his habitual causticity, Thomas Wakley lampooned the royal colleges: "With them, the chief qualification for eminence in the healing art is ignorance of one or the other half of it . . . but a general practitioner—a man so preposterous as to understand both physic and surgery—is fit only to become a subordinate."

The next major attempt at educational reform was driven by the National Association of General Practitioners established in 1844, but another bill was

once again thwarted. The optimism among practitioners of the 1820s had faded away by 1850. The foundation of a College for General Practitioners was to be delayed for more than a century.

GPs failed to achieve parity with physicians and surgeons for multiple reasons. A monopolistic bill ran counter to the laissez faire, liberal spirit of the age. Voluntary hospitals dominated medical education, and GPs were entirely divorced from teaching. Their leaders were constantly outflanked by the persistent obstructionism of the colleges of physicians and surgeons.

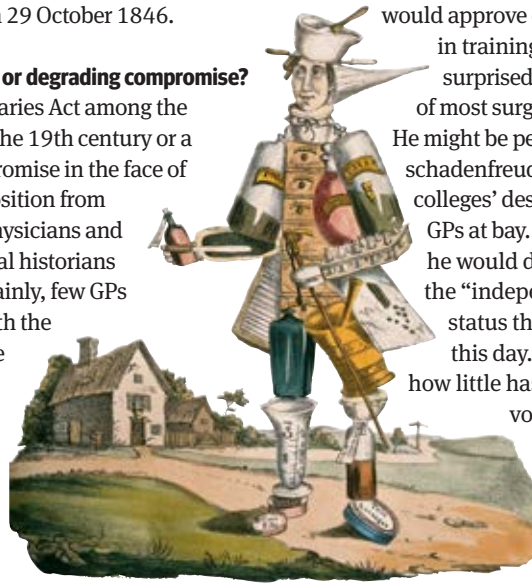
What would Burrows make of UK general practice today? He always rued the loss of independence that would have been enshrined in a new college and would be gratified by its royal appellation. He would approve of the developments in training but would be surprised by the disappearance of most surgery from practice. He might be permitted some schadenfreude about the other colleges' desire to keep upstart GPs at bay. In that early disunity, he would discern the roots of the "independent contractor" status that divides the NHS to this day. He might note wryly how little has changed in the volumes of physic that GPs prescribe and their dependence on dispensing. He would observe how their origins as tradesmen have equipped them as entrepreneurs and commissioners. Finally, he would note that doctors have

always grumbled about their lot.

Burrows had a leading role in the movement that led to the passing of the Apothecaries' Act and in the reforms that were to culminate in the Medical Act 1858. "In the conducting of the multifarious transactions in which I became engaged, I endeavoured to discharge my duty with fidelity, and had the satisfaction of feeling that my conduct always met with the approval of my colleagues." Two hundred years on, that approbation is gratefully reaffirmed.

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**The rise of the surgeon-apothecary in the 18th century was largely driven by economic expediency. Most surgeons practised physic and pharmacy to survive, whereas apothecaries often undertook simple surgical procedures**

ORIGINAL RESEARCH Randomised controlled trial

# Power up! How video games could improve decision making in trauma triage

Deepika Mohan, Coreen Farris, Baruch Fischhoff, Matthew R Rosengart, Derek C Angus, Donald M Yealy, David J Wallace, Amber E Barnato

**Objective** To determine whether a behavioural intervention delivered through a video game can improve the appropriateness of trauma triage decisions in the emergency department of non-trauma centres.

**Design** Randomised clinical trial.

**Setting** Online intervention in national sample of emergency medicine physicians who make triage decisions at US hospitals.

**Participants** 368 emergency medicine physicians primarily working at non-trauma centres. A random sample (n=200) of those with primary outcome data was reassessed at six months.

**Interventions** Physicians were randomised in a 1:1 ratio to one hour of exposure to an adventure video game (Night Shift) or apps based on traditional didactic education (myATLS and Trauma Life Support MCQ Review), both on iPads. Night Shift was developed to recalibrate the process of using pattern recognition to recognise moderate-severe injuries (representativeness heuristics) through the use of stories to promote behaviour change (narrative engagement). Physicians were randomised with a 2×2 factorial design to intervention (game v traditional education apps) and then to the experimental condition under which they completed the outcome assessment tool (low v high cognitive load). Blinding could not be maintained after allocation but group assignment was masked during the analysis phase.

**Main outcome measures** Outcomes of a virtual simulation that included 10 cases; in four of these the patients had severe injuries. Participants completed the simulation within four weeks of their intervention. Decisions to admit, discharge, or transfer were measured. The proportion of patients under-triaged (patients with

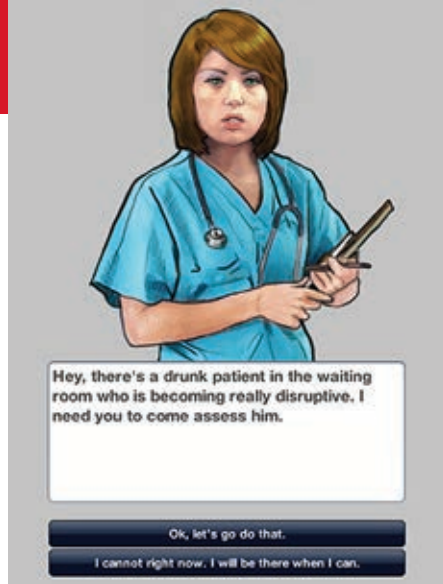
severe injuries not transferred to a trauma centre) was calculated then (primary outcome) and again six months later, with a different set of cases (primary outcome of follow-up study). The secondary outcome was effect of cognitive load on under-triage.

**Results** 149 (81%) physicians in the game arm and 148 (80%) in the traditional education arm completed the trial. Of these, 64/100 (64%) and 58/100 (58%), respectively, completed re-assessment at six months. The mean age was 40 (SD 8.9), 283 (96%) were trained in emergency medicine, and 207 (70%) were ATLS (advanced trauma life support) certified. Physicians exposed to the game under-triaged fewer severely injured patients than those exposed to didactic education (316/596 (0.53) v 377/592 (0.64), estimated difference 0.11, 95% confidence interval 0.05 to 0.16; P<0.001). Cognitive load did not influence under-triage (161/308 (0.53) v 155/288 (0.54) in the game arm; 197/300 (0.66) v 180/292 (0.62) in the traditional educational apps arm; P=0.66). At six months, physicians exposed to the game remained less likely to under-triage patients (146/256 (0.57) v 172/232 (0.74), estimated difference 0.17, 0.09 to 0.25; P<0.001). No physician reported side effects. The sample might not reflect all emergency medicine physicians, and a small set of cases was used to assess performance.

**Conclusions** Compared with apps based on traditional didactic education, exposure of physicians to a theoretically grounded video game improved triage decision making in a validated virtual simulation. Though the observed effect was large, the wide confidence intervals include the possibility of a small benefit, and the real world efficacy of this intervention remains uncertain.

**Trial registration** [clinicaltrials.gov](http://clinicaltrials.gov); NCT02857348 (initial study)/NCT03138304 (follow-up).





## Introduction

Medical diagnosis requires physicians to collect and integrate information from multiple sources.<sup>1</sup> Under normal conditions, this requires reliance on heuristic cognitive processes.<sup>2,3</sup> Heuristics generate solutions to complex problems through pattern recognition and simplifying assumptions. When calibrated well, heuristics allow people to function under conditions of time pressure and uncertainty.<sup>4</sup> When calibrated poorly, however, they result in predictable errors in judgment.<sup>5</sup> Existing interventions have had limited success at addressing the influence of heuristics on diagnosis. We created and tested an intervention to recalibrate physician heuristics for a medical diagnosis task that remains problematic—trauma triage.

## Methods

We have previously published the study protocol for this trial.<sup>28</sup> We developed a video game (Night Shift) in collaboration with Schell Games (Pittsburgh, PA) that used narrative engagement (the use of compelling stories to promote behaviour change) to disseminate clinical practice principles in trauma triage.

We conducted a randomised controlled trial of the effect of the game compared with traditional didactic education on simulated triage decision making by emergency medicine physicians. We recruited physicians working primarily at non-trauma centres in the US at the 2016 annual scientific meeting of the American College of Emergency Physicians (16–18 October). Participants were randomised to the game or two traditional educational apps, both designed as adjuncts to the advanced trauma life support (ATLS) course, for at least one hour. They then completed a virtual simulation (outcome assessment tool) that replicated conditions in an emergency department of a non-trauma centre so that we could assess their triage decisions. The 10 case simulation included four patients with severe injuries. Physicians

## WHAT IS ALREADY KNOWN ON THIS TOPIC

- Strategies designed to change physician decision making have had limited success
- No interventions exist to improve physician heuristics—the intuitive judgments that drive much of medical decision making

## WHAT THIS STUDY ADDS

- In this randomised clinical trial, physicians exposed to a video game intervention were more likely to follow clinical practice guidelines in the triage of simulated trauma patients than physicians exposed to a traditional educational program
- A theoretically grounded video game intervention has the potential to modify physician behaviour, but the magnitude of the effect and real world effectiveness remain uncertain
- Key limitations include our use of a convenience sample of physicians and the use of a virtual simulation as the outcome assessment tool

also completed questionnaires that assessed demographics and process measures (adherence, useability, likeability). Six months after the trial (May 2017), we emailed a random sample of 100 physicians from each group to ask them to complete the simulation again, with a different set of trauma cases.

## Analyses

The completion rate was the proportion of participants who finished the virtual simulation. Physician characteristics were summarised using descriptive statistics. We calculated each group's proportion of under-triage (the number of severely injured patients not transferred to a trauma centre divided by the total number of severely injured patients).<sup>46</sup> We compared the effects of the interventions on under-triage during the initial trial and the six month re-assessment using analyses of variance.

We measured adherence as self reported minutes spent on the intervention. Qualitative feedback on its useability and likeability was categorised positive or negative. Kruskal-Wallis and  $\chi^2$  tests were used to compare process measures across interventions, and analyses of variance tested the association between process measures and under-triage.

We registered the trial on clinicaltrials.gov (NCT02857348 (initial study); NCT03138304 (follow-up)). We estimated that enrolling 368 physicians would give us 80% power to detect an 8–12% (moderate-large) difference in performance between the two groups (significance level of 0.05). For the six month outcome study, we estimated that recruiting 200 physicians would give us 80% power to detect an 8% (moderate) difference in performance between the two groups (significance level of 0.05).

## Results

We enrolled 368 physicians in the trial. Of these, 297 (81%) completed outcome assessment. The mean age of physicians

completing the protocol was 39.9 (SD 8.9), 283 (96%) had completed a residency in emergency medicine, and 207 (70%) had received certification in ATLS (table).

In May 2017, we recruited a random sample of 100 physicians from each intervention arm, and enrolled 142 (71%) in the six month outcome assessment. Of these, 122 (61%) completed the outcome assessment tool for a second time.

## Triage decision making

Physicians randomised to receive game based education (n=149) under-triaged fewer severely injured patients than those exposed to the didactic educational programme (n=148) (316/596 (0.53) v 377/592 (0.64); mean difference 0.11, 95% confidence interval 0.05 to 0.16; P<0.01). This difference persisted at six months (146/256 (0.57) v 172/232 (0.74); mean difference 0.17, 95% confidence interval 0.09 to 0.25; P<0.01).

## Adherence, useability, and likeability of the interventions

The time physicians reported spending on their intervention was similar: 90 minutes (range 30–240; interquartile range 60–120) on the game and 90 minutes (range 45–300; interquartile range 65–120) on the educational apps (P=0.06). Those in the game arm more often noted useability problems than those in the didactic education arm (30% v 8%, P<0.01) and were less likely to describe their intervention as enjoyable (40% v 91%, p<0.01).

Physicians who spent more time on their assigned intervention had better performance on the triage simulation. Reported enjoyment of the intervention was unrelated to performance on the simulation.

## Discussion

### Principal finding

Exposure to a theoretically based video game changed the behaviour of physicians

making decisions about trauma triage compared with those exposed to a traditional educational programme.

#### Strengths and limitations

Our study had several limitations. First, we selected participants attending a national conference. Use of such a convenience sample would have affected both arms equally, however, rendering the results internally valid. Second, the simulation included only 10 cases with an enriched base rate of severe injuries, potentially introducing bias and precluding the assessment of individual physician performance.<sup>3 50</sup> We have previously validated our use of simulation to measure performance by comparing the responses of emergency medicine physicians on the simulation with their practice patterns, finding that key decisions (such as acquisition of radiologic studies, disposition) match.<sup>45</sup>

#### Conclusions and policy implications

Trauma triage exemplifies the complexity and importance of diagnostic decisions made under time pressure and uncertainty. Physicians must make their decisions quickly and with incomplete information. Additionally, most physicians have relatively little experience with severely injured patients: physicians working at non-trauma centres evaluate about 1000 patients for every one with severe injuries.<sup>60</sup> These conditions make it extremely challenging to learn appropriate triage. Existing interventions, which emphasise physician knowledge of and attitudes towards the clinical practice guidelines, do not adequately deal with the challenges faced by physicians at non-trauma centres. Our results suggest that narrative based video games have the potential to influence physician behaviour, although the real world implications remain unclear.

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# The bright spark who lit up Glasgow

**Chris Holme** explores the life of John Macintyre, the 19th century physician and electrician



**P**ressure on doctors to keep up with technology can be a pain, but it's nothing new. For John Macintyre, it was not just a pleasure but an all consuming passion.

Macintyre had an astonishingly inventive mind, making some of the earliest sound recordings of the great singers and actors of the late Victorian era. He had humble origins, born the son of a tailor in Glasgow's High Street in 1857. He became an apprentice "sparkie" (electrician), but an aunt's bequest enabled him to study medicine. After graduating in 1882 he gained experience in London, Paris, and Vienna.

These twin interests shaped his early career in gaslit Glasgow. As consulting medical electrician, he literally brought electric light to the wards of the Royal Infirmary. He also worked as an ear, nose, and throat specialist, acquiring a house and consulting rooms in Bath Street. By 1893 his private practice was thriving: his opinion was eagerly sought by superstars such as Dame Nellie Melba, Sir Henry Irving, Luisa Tetrazzini, Charles and Fanny Manners, and the Polish musician Ignacy Paderewski.

Macintyre made his own recording studio, using a phonograph to capture patients' voices and performances on wax cylinders (possibly the first recordings of

Paderewski, early in his musical career). His wide circle of friends included the scientists Lords Kelvin and Blythswood, who came to play with his newfangled acquisition: a cinematograph from the United States.

This led to Macintyre's finest hour. In November 1895 Wilhelm Röntgen discovered x rays at his laboratory in Würzburg, Germany, and he wrote to leading British physicists for help—including Kelvin, who enlisted Macintyre's support. Amid international excitement about the potential of x rays, Macintyre was inspired.

**Macintyre had an astonishingly inventive mind, making some of the earliest sound recordings of the late Victorian era's great singers and actors**

Ever practical, Macintyre had by March 1896 secured agreement to establish the world's first x ray department for patients at Glasgow Royal Infirmary. He has been credited with producing the first x ray photographs and the first x ray motion picture, shown first in Glasgow and then at the Royal Society in London.

Celebrity patients continued to arrive and sometimes got an x ray photo of their hand as a souvenir (although Macintyre knew of the dangers of radiation exposure). Joseph Conrad visited in September 1898 seeking passage on a



**Very few films survive from the 19th century, but Macintyre's x ray movie is one of them**

ship, months before publishing *Heart of Darkness*. The journalist and fellow novelist Neil Munro joined them for dinner, listening to Macintyre's celebrity recordings before drinking and telling stories into the small hours.

Conrad later recounted: "McIntyre [sic] is a scientific swell who talks art, knows artists of all kinds, looks after their throats, you know. He has given himself a lot of trouble in my interest . . .

"What we wanted (apparently) was more whisky. We got it. Mrs McIntyre went to bed. At one o'clock Munro and I went out into the street . . . We foregathered very much indeed and I believe Munro didn't get home till five in the morning." Conrad later wrote to Macintyre inviting him to visit him in England, "if bohemianism in a farm house does not look dangerous to you."

Macintyre's achievements—as an ENT specialist and a pioneer of radiology—were widely recognised in his lifetime in the UK and overseas. He was president of the British Laryngological, Rhinological and Otological Association in 1893 and 1900. His death in 1928 triggered much mourning, but his longer term legacy is mixed. Although Glasgow University has a John Macintyre building, this is named after another doctor.

Macintyre's unique wax recordings were kept in an attic, only to melt in the scorching summer of 1976. Very few films survive from the 19th century, but his x ray movie is one of them [<https://movingimage.nls.uk/film/0520>], alongside a fragment, preserved by the New York Museum of Modern Art, of the earliest surviving cinema advert [<http://bit.ly/2i9iOfX>]<sup>1</sup>—for Dewar's whisky.

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**John Macintyre's finest hour was establishing the world's first x ray department**



# From WhatsApp queen to the keen bean — stereotypes of 21st century doctors



## THE WHATSAPP QUEEN

She's a member of so many different WhatsApp groups, it's no wonder she gets a bit confused. Anyway, it's got end-to-end encryption, so not even the CIA can hack into it. That's what everyone says.

She's a member of the trauma team group on WhatsApp—sooo useful in a major incident or for organising birthday collections or sending funny memes around. She needed to run a scan past the consultant, and he told her to send it to the whole group: he loves that stuff, as he's got teenage kids and the only way he can communicate with them is through Instagram and Snapchat. Like, who uses Facebook anymore, anyway? The team's always whizzing scans back and forth, and they only ever use patients' initials, so it's not as though they're identifiable.

The trouble is, she thinks that she sent the scan to the WhatsApp group for her son's class, and one of the other mums is a manager at the trust who's always banging on about patient confidentiality and data protection. You don't think she's going to snitch, do you?



## THE APP DEVELOPER

She's got this little side hustle going on, which is set to disrupt healthcare. She's in stealth mode at the moment but is looking for crowdfunding so that she can upscale her idea.

Basically, she's come up with a device which, when hooked up to an iPhone (OK, it works with Android too), will be able to monitor a patient's symptoms, perform routine procedures such as taking bloods and inserting IVs, and even organise the coffee rota. And—this is the really cool part—she's built in an algorithm that allows it to learn iteratively. So, the more it performs a procedure, the better it will get.

It's still in the development stages, so she doesn't really have the bandwidth to concentrate on her day job. But do you fancy getting on board as an angel investor?

What do you mean, "It sounds like a medical student"?



## THE SMUG CONSULTANT

"So, Olivia's in her final year at school and, fingers crossed, she'll join Seb at Cambridge. We spent a fortune on school fees, so she'd better bloody get those A stars or there'll be blue murder from me and her mother.

"Private practice has dried up a bit and the indemnity fees have gone sky high, but back in the day the wife and I were really able to coin it in. At least the mortgage is paid off, and the accountant's been able to do a little something on the quiet so that the flat in Courchevel is tax deductible. We're sitting pretty now—time to enjoy life, I say.

"I love my job, but what gets me down is my trainees. Such long faces... they're always banging on about the new contract, the cost of childcare, and rota gaps, whatever they are. They keep telling me that we had it so good: cheap mortgages, the firm to look after us, and a gold plated pension to look forward to.

"Not sure what they're moaning about. They never had to do 14 night shifts on the trot and then get bawled out by a consultant who modelled himself on Sir Lancelot Spratt, did they?"

We all know and recognise the rigger-bugger orthopods, self medicating gas men, and A&E doctors who just love to get stuck in. Now, after extensive research, **Anne Gulland** has unearthed the typecasts plaguing modern day medicine



**THE PORTFOLIO GP**

“You want to see Dr Smith? She teaches on a Monday; every other Tuesday she has a clinical commissioning group management meeting; Wednesday’s her admin day; Thursday’s her day off; and on Fridays she’s got this new project with NHS England, researching how to increase GP capacity.

“Now, let’s have a look: her CCG meeting is next Tuesday, so you could see her this Tuesday. No—sorry—she’s got a meeting with someone about setting up a private tattoo removal practice, “Re-think the Ink”; and then it’s her CCG day the following Tuesday. She could do some time in March if you’re free?”

“Oh, you’d rather play appointment roulette when the phone lines open at 6 am tomorrow? That’s absolutely fine. Or, if you know where the CCG offices are, you could hang out in reception and try to catch her there. She’s such a popular doctor: unlike the other partners, she’s not at all jaded or frazzled and has managed to retain her enthusiasm for general practice.”



**THE LEADERSHIP GURU**

**Monday** – All day conference: Leading in times of difficulty and change

**Tuesday** – 9-12 am: Coaching workshop  
12-2 pm: Lunch with mentor—discuss boss and her attitude

2.30-5 pm: Communication skills training

**Wednesday** – 9-11 am: Meeting with lawyer (bring diary to demonstrate heavy workload)

12-3.30 pm: Workshop on building effective teams

4 pm: Mindfulness training

**Thursday** – 9-10 am: Meeting with manager to discuss working hours. NB—ask if BMA rep can attend

11.30 am-1.30 pm: Working lunch with mentee. Discuss raising self awareness

2-5 pm: Workshop on prioritising and planning

**Friday** – 9 am-12 pm: Meeting with senior exec (bring BMA rep and lawyer)

2-4 pm: Locum agency catch-up—discuss transferable skills

6 pm: Meeting with financial adviser (bring mortgage and pension statements)

**Saturday** – Start “sabbatical.”



**THE KEEN BEAN**

He really needs to get his clinical skills signed off, but the wards are just so busy! As well as his fellow medical students there are physician associate students, nursing students, surgical care practitioner students, and lots of other people whose roles he has never even heard of. They all seem to bag the best patients and, to top it all, his educational supervisor is on long term sick leave.

He knows that he shouldn’t have inserted that nasogastric tube into that patient, but how was he ever going to get any practice? It was just sitting there. And yes, that man didn’t need catheterisation, but he was very understanding about it. Said that he quite liked not having to get up to go to the loo.

And, OK, he shouldn’t have performed that caesarean, but mother and baby are doing fine now, aren’t they? If he can just get his skills signed off he promises to stop.

Anne Gulland, London

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## 10 MINUTE CONSULTATION

# Mastering management language syndrome

A 51 year old hospital doctor has been referred to your occupational health clinic. Since a trust service reorganisation, he has been uttering strings of unintelligible jargon such as “paradigm shift,” “granularity,” and “quick wins” punctuated by three letter abbreviations such as CCGs, STPs, and ACOs and ending discussions with “What does good look like?”

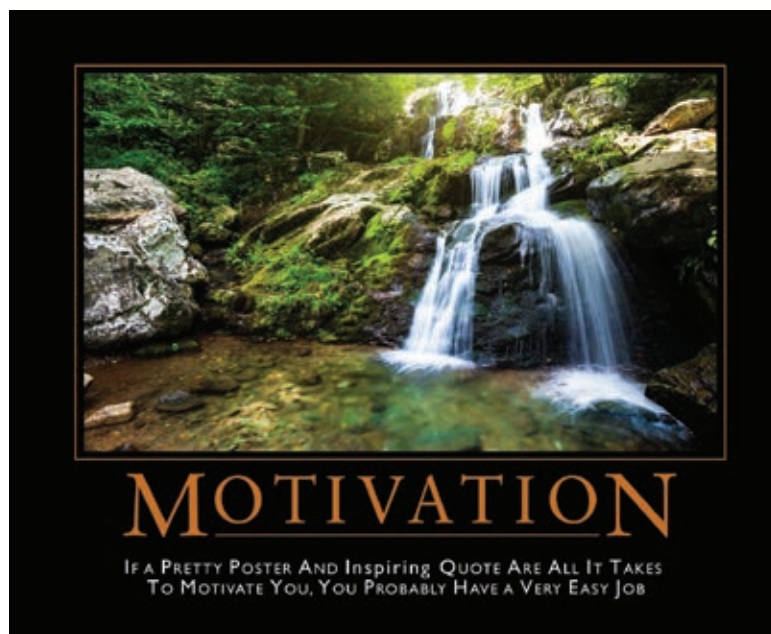
## WHAT YOU NEED TO KNOW

- The incidence of management language syndrome is rising and is thought to be associated with increasing leadership and management training among healthcare staff
- Diagnosis is essential to prevent aloofness, communication difficulties, and an undue focus on “key performance indicators”
- A structured approach can aid early identification of this debilitating disorder and prevent potentially permanent performance paralysis

**Do colleagues report the use of words such as “deliverability” or “quick wins”? Has the patient ever sent out a minuted memo or, worse, a “transformational agenda”?**

Table 1 | Clinician translation aid for management language

Clinician speak	Management speak
Presenting complaint	Agenda
History	Deep dive
Collateral history	Stakeholder consultation
Ideas, concerns, expectations	Balanced scorecard
Comorbidities	SWOT analysis
Examination	Process mapping
Vital signs	Key performance indicators
Management plan	Work breakdown structure
Analgesia	Quick win
Clinician	Project manager
Nursing staff	Project team
Patient	Service user
Head of department	Project sponsor
No rota gaps	Blue sky thinking
Multidisciplinary team	Programme board
Clinically significant	Quantum leap
On-call bleep	Demand management
Doctors' mess	Peer-peer benchmarking



A diagnosis of management language syndrome (MLS) is suspected. With the shifting focus of the NHS to embed leadership and management values among frontline clinicians, a rising incidence of MLS is now reported in all areas of clinical practice. This article details how to identify clinicians who have taken too “deep a dive” into the world of clinical management so that colleagues may “hit the ground running” in providing support and aiding recovery.

### What you should cover

It is important to appreciate that those with MLS are often unaware they are affected. Mastering management language is essential before taking a detailed history for full understanding of the presenting complaint (table 1).

### History

Ask about the nature of the abnormal speech patterns

- **Site** Are the changes to speech only restricted to the workplace, or do even family members report that they are now being “line managed” or recently put under a “performance review”?
- **Onset** The first onset of symptoms can be tricky to pinpoint, but it is often related to a recent appointment to medical director, CCG chair, or royal college position. A rising incidence of

early onset MLS has been reported among trainees having undergone leadership fellowships.

- **Character** How does the patient describe his or her symptoms? Is there mention of an “elephant in the room” or a feeling of “connected sameness”?
- **Exacerbating/relieving factors** Ask if the symptoms are exacerbated by a pending healthcare regulator inspection or extraordinary board meeting. Case reports have suggested improvements to intelligibility of speech when sufferers of MLS have “taken it offline,” even temporarily.
- **Associated features** Getting a collateral history is essential in identifying associated features. Do colleagues report the use of words such as “deliverability” or “quick wins”? Has the patient ever sent out a minuted memo or, worse, a “transformational agenda”?
- **Severity** Calculation of the severity of the condition can be performed in clinic by using the abbreviated management speak test (AMST) (table 2).

### What you should do?

#### Examination

A structured examination is key. While some clinicians prefer a “top down” or “bottom up” approach, we would recommend first taking a

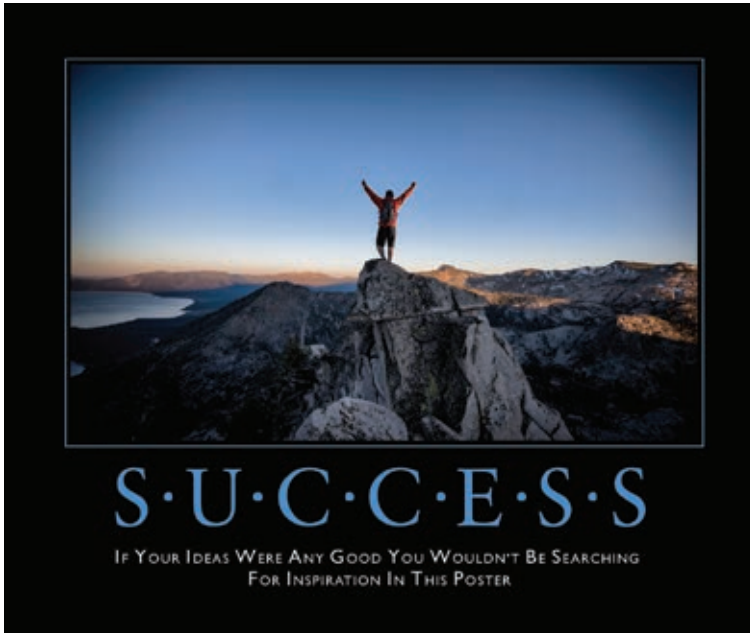


Table 2 | Abbreviated management speak test (AMST)\*

No of jargon words in 10	Examples of associated symptoms	Severity of MLS and likely prognosis
1-3	Increasing reliance on Outlook calendar and conference calls, even when conducting a ward round. Clinical sessions punctuated by meetings with no defined goals and minimal outcomes	<i>Mild</i> This is deemed as “low hanging fruit” and is readily reversible with greater exposure to patient-facing roles
4-6	Saving time by abbreviating “best wishes” to “bw” in emails, greetings cards, and policy documents. Impairment of activities of daily living due to obsessive-compulsive reading of emails, instant messages, and tweets (for example, when toileting, bathing, or eating)	<i>Moderate</i> This suggests a thorough “root and branch analysis” is required to assess management options
>6	A semi-purposeful writhing movement of fingers and separation anxiety when estranged from their touch-screen tablet computer. Muttering “There’s tension in the system, there’s tension in the system” repeatedly	<i>Severe</i> This may indicate the clinician’s management duties may need to be permanently decommissioned

\*The test can be used on any clinician suspected of MLS. It should ideally be performed in more than one workplace environment

“helicopter view” before focusing on the more “granular” aspects.

Assess the patient’s general appearance; is there skin pallor from excessive amounts of time in windowless offices? Are they clutching incessantly alarming electronic devices or furiously tapping their smart watch? The patient will be keen for you to complete your assessment by “looking under the bonnet.”

**Next steps**

If MLS is suspected, conduct a full “root-cause analysis” to determine the optimal “sustainability and transformation plan” to full recovery.

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# The perils of no-do encephalopathy

Countries annually invest millions to ensure healthcare is evidence based and reflects current and rigorous research evidence. Despite these efforts, there is a silent epidemic of resistance that no amount of training, incentives, or regulation seems to erode. Moreover, the condition is often contagious. Recent advances have enabled the condition to be characterised and provided mechanism insights and possible treatments.

**Phenotypes**

Resistance has two main presentations: *Know-do-itis* is the milder form and is characterised by multifactorial dysregulation of the know-do synaptic junction, impacting on the ability to translate knowledge into action. It commonly occurs in clinicians who have very large egos, are burnt out, have poor leadership, or work with poor policies. It is potentially reversible. *No-do encephalopathy* is a more worrisome, progressive condition, marked by resistance to knowledge. It is seen in clinicians who base their practice on their first or most recent case and who are allergic to the word “guideline.”

**Neurophysiology**

The know-do synapse has now been well characterised. Knowledge neurotransmitters are released in the know axon and diffuse into the synaptic gap if there is a large enough action potential to open the inertia channels. Knowledge neurotransmitters are recycled by the know-it-all reuptake pump. Knowledge neurotransmitters that bind to the do-the-right-thing receptors on the do dendritic spine generate a potential to activate the do neuron to fire and compel the clinician to provide care. Other competing inhibitory and excitatory interneurons, neurotransmitters, and receptors also influence transmission of knowledge to action across the know-do synaptic gap.

Know-do synaptic gaps are found across the system from clinicians to clinical units, hospital administration, universities, healthcare payers, and ministries of health.

**New treatment opportunities**

A promising new treatment is patient and family partnership, but it is easily inhibited, and resistance can develop. Sustained treatment can have dramatic results, creating holistic assessments with input from family and a wide clinical team. The field is focusing on scaling up production of patient partnership and strengthening the supply chain so it is available in all settings.

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