

Prescription-related illness – a scandalous pandemic

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FROM ABSTRACT:

Prescribed drugs are now a major cause of morbidity and mortality, particularly in the elderly. **[WOW! Can you believe that statement?]**

The extent of this pandemic is described and its likely causes in primary care are identified: unnecessary prescribing, imprecise diagnosis, inadequate undergraduate and postgraduate education in pharmacology and therapeutics, the uncritical application of evidence-based medicine, the outstanding development of new drugs and their sometimes unjustified promotion.

Urgent action is recommended under seven headings, by health administration, epidemiologists, medical educators and prescribing doctors.

THIS AUTHOR ALSO NOTES:

“Prescription-related disease is a pandemic.”

“The most reliable measure of the extent of this problem, the iceberg’s tip, is the incidence of acute emergency hospital admissions directly attributable to prescribed medication.”

“Approximately 5% of all acute hospital admissions in all age groups are because of prescribed medicines.”

Seniors over age 70 are the most vulnerable group to prescription drug adverse reactions.

In Norway, 18% of all deaths of elderly patients in hospitals were related to prescription drugs. 50% of these deaths were avoidable, which means that 9% of elderly patients in Norway died unnecessarily because of prescribed drugs. [Ebbeson J., Buajordet I., Erikssen J. *et al.* (2001) Drugrelated deaths in a department of internal medicine. *Archives of Internal Medicine*, 161, 2317–2323.

These findings in Norway are probably the same in other European countries.

THE REASONS FOR PRESCRIPTION-RELATED MORBIDITY AND MORTALITY:

- 1) Unnecessary use of drugs, which results in 100% risk and 0% benefit.
- 2) Incorrect diagnosis resulting in the application of the wrong drug.
- 3) Inadequate teaching of pharmacology in medical school.
- 4) The unwanted side effect of evidence-based medicine: an appropriate drug for a single condition causes a cascade of deleterious effects when multiple such drugs are given for multiple conditions. **[Very Important]**

"The first cause of adverse drug reactions is over-prescribing – the unnecessary use of drugs, leading to 100% risk and 0% benefit." These include:

- 1) Peripheral vasodilator drugs.
- 2) Pharmacologically active cough medicines.
- 3) High potency steroids for mild eczema.
- 4) A proton pump inhibitor for every Monday-morning dyspepsia.
- 5) Diazepam for every trace of anxiety.
- 6) Antibiotics for the common cold, influenza, laryngitis and acute bronchitis.

"More than 70% of upper respiratory infections are caused by viruses which will not be affected by antibiotics; but the antibiotics will devastate the normal bacterial flora throughout the body and make it more likely that the viruses will flourish, that secondary pathogenic bacteria will supervene and that resistant strains will emerge." **[WOW! Great Sentence.]**

Antibiotics are the most common prescriptions in all children and adults between 15 and 45 years.

"It appears that many GPs regard antibiotics as the latter day magic and can never feel that 'everything possible has been done' for such patients, unless an antibiotic has been prescribed.

"It is probable that over 1000 patients in the UK die every year of antibiotic-related adverse drug reactions and superinfections."

NATIONAL AMBULATORY MEDICAL CARE SURVEY OF PRESCRIPTION-RELATED ILLNESS IN USA:

- 1) Costs more than \$1 billion per year.
- 2) Causes more than 100,000 deaths per year.
- 3) Causes more than 12% of elderly hospitalizations per year.

INAPPROPRIATE PRESCRIBING FOR PEOPLE 70–75 YEARS, THE % RISK OF SERIOUS ADVERSE DRUG REACTIONS:

- 1-drug treatment – 5%
- 2-drug treatment – 11%
- 3-drug treatment – 19%
- 4-drug treatment – 24%
- 6-drug treatment – 33%

THE FOUR MOST COMMON CATEGORIES OF PRESCRIBED DRUGS PER DOCTOR VISIT, a 1999 study:

Children, 0–5 years	1)	Antibiotics	20%
	2)	Analgesics [i.e. Tylenol]	18%
	3)	Topical skin preparations	13%
	4)	Beta-2 agonists [i.e. for asthma]	4%
Women, 15–44 years	1)	Antibiotics	7%
	2)	Oral contraceptives	7%
	3)	Analgesics [i.e. Tylenol]	5%
	4)	NSAIDs	3%
Men, 15–44 years	1)	Antibiotics	10%
	2)	Analgesics [i.e. Tylenol]	7%
	3)	Beta-2 agonists [i.e. for asthma]	5%
	4)	NSAIDs	4%

PERCENTAGE OF PATIENTS RECEIVING ANTIBIOTICS FOLLOWING A DOCTOR VISIT

Coryza [runny nose]	40%
Sinusitis	60%
Otitis Media	73%
Tracheitis	79%
Chest Infection	79%
Tonsillitis	83%

PERCENTAGE OF PATIENTS RECEIVING ANTIBIOTICS WITH NO DOCTOR VISIT, PRESUMABLY WITH A PHONE CALL TO THE DOCTOR OR HIS/HER STAFF:

Coryza [runny nose]	45%
Sinusitis	64%
Otitis Media	81%
Tracheitis	81%
Chest Infection	83%
Tonsillitis	88%

The above data shows that more patients receive their antibiotics over-the-phone than from actually visiting the doctor. The author of this article asks:

“Is this not perilously close to malpractice?” **[Incredible]**

“The second cause of drug-related illness is poor diagnosis.”

“Diagnostic uncertainty is unavoidable in a large proportion of GP consultations.” [I believe this includes a large portion of chiropractic consultations as well.]

Most patients in general practice are “suffering from minor, self-limiting illnesses.”

THIS AUTHOR STATES THAT THE FOLLOWING DRUGS ARE GIVEN WITH “no expectation of improving the underlying condition, but with the hope of symptom relief and some placebo effect:”

- Expectorants / cough suppressants
- Antacids
- Hypnotics
- Laxatives
- Minor Analgesics
- Hosiery [support hose for extremity swelling]

“It is perfectly correct for GPs to wish to relieve symptoms and to use simple drugs for self-limiting conditions.”

[I believe that it is perfectly correct for chiropractors to treat patients for temporary symptom relief as well.]

THIS AUTHOR STATES THAT THE FOLLOWING DRUGS ARE GIVEN WITH “a presumptive” diagnosis” “or more honestly, a guess.” The author notes that these drugs have “many side-effects and the potential for interaction with other drugs.”

- Penicillins
- Other oral antimicrobials
- Peripheral vasodilators
- Proton pump inhibitors
- Histamine-2 antagonists
- Topical skin preparations
- Anxiolytics
- Neuroleptics
- Antimicrobial eye preparations
- Vaginal preparations
- Antihistamines
- Non-steroidal anti-inflammatory drugs

“In all of these often-presumptive prescriptions, the doctor is subjecting the patient to measurable risk of iatrogenic disease, without the certainty of benefit.”

“The most important in terms of long-term harm are the non-steroidal anti-inflammatory drugs, responsible for over 30% of all serious adverse drug reactions reported to the UK government.”

DOCTORS’ IGNORANCE of BASIC PHARMACOLOGICAL PRINCIPLES INADEQUATE TEACHING:

“About 90% of known pharmacology and molecular biology has been discovered since 1970.”

In many UK medical schools, students receive minimal instruction in the overwhelming science of pharmacology. **[INTERESTING]**

Medical students have hundreds of hours teaching in anatomy and pathology (which have very limited relevance in general practice).” **[This highlights the differences between medical education and chiropractic education. In chiropractic education, anatomy (especially) and pathology are of primary importance in clinical practice.]**

“In the UK, there is no final examination in applied pharmacology for the primary medical degree or for any of the postgraduate qualifications.” **[WOW!]**

“Few GPs could recall even the main 11 enzyme inhibitors or the seven enzyme inducers which really matter.” **[AMAZING]**

"For patients up to the age of 65 years, these three factors may be found to account for over 80% of iatrogenic disease." [1) Unnecessary use of drugs, 2) Incorrect diagnosis, 3) Inadequate teaching of pharmacology in medical school]

"Worse is to follow!"

"Evidence-based medicine is driving polypharmacy." **[MOST IMPORTANT]**

The application of evidence is "a major cause of iatrogenic disease."

Single drugs that are indicated for single conditions can increase the likelihood of a serious adverse drug reaction to over 80% when prescribed in polypharmacy. **[VERY IMPORTANT]**

So many drugs have been developed in the last 40 years that:

"It is now virtually impossible for even a fulltime pharmacologist to have adequate knowledge of all the drugs in all of these therapeutic groups."

"The drug industry has played upon the doctors' relative ignorance of pharmacology, to indicate that every new drug is effective and safe."

"Indeed, every licensed new drug appears effective and safe, until after a few years of use, we discover its potential for harm." **[Very Important]**

"It is now essential for all GPs across Europe to recognize that they cannot continue to prescribe solo."

"As in most hospitals, the pharmacist must now become directly involved and responsible, with the prescriber, for quality assurance in both acute and long-term maintenance medication.

THIS AUTHOR MAKES A NUMBER OF RECOMMENDATIONS TO REDUCE PRESCRIPTION RELATED MORBIDITY, including:

1) Improved undergraduate and life-long education, plus a separate examination in pharmacology for all postgraduate prescribers.

2) "Continuous survey of iatrogenic emergency hospital admissions by the National Patient Safety Agency, with confidential feedback to the responsible doctor and feed-forward to administrators."

"Desperate conditions require desperate remedies!"

(HIPPOCRATES c. 1500 BC)

KEY POINTS FROM DAN MURPHY

1) Prescribed drugs are a major cause of global morbidity and mortality.

2) Prescription-related disease is a pandemic.

- 3) Medical doctors:
 - A)) Often prescribe drugs unnecessarily.
 - B)) Often prescribe drugs with a wrong or "guessed at" diagnosis.
 - C)) Are poorly trained in pharmacology.
 - D)) Follow evidence based guidelines which do not work when there is more than one condition requiring more than one drug.
- 4) About 5% of all acute hospital visits are because of prescribed drugs.
- 5) Seniors over age 70 are the most vulnerable group to prescription drug adverse reactions.
- 6) 18% of all deaths of elderly patients in hospitals are related to prescription drugs, and half of these deaths were avoidable.
- 7) "More than 70% of upper respiratory infections are caused by viruses which will not be affected by antibiotics; but the antibiotics will devastate the normal bacterial flora throughout the body and make it more likely that the viruses will flourish, that secondary pathogenic bacteria will supervene and that resistant strains will emerge." **[WOW!]**
- 8) Over 1000 patients in the UK die every year of antibiotic-related adverse drug reactions.
- 9) The most commonly prescribed drugs for children, women, and men are antibiotics, pain drugs, and asthma drugs.
- 10) In the USA, drug caused illness costs more than \$1 billion per year, more than 100,000 deaths per year, and causes more than 12% of elderly hospitalizations per year.
- 11) The more prescription drugs a person is on the more likely that they will suffer a serious adverse reaction (i.e. for seniors it is 33% if taking six drugs).
- 12) More patients receive their antibiotics over-the-phone than from actually visiting the doctor, which is "perilously close to malpractice."
- 13) In medicine [and probably in chiropractic], diagnostic uncertainty is unavoidable.
- 14) Many drugs are prescribed with no expectation of improving the underlying condition, but with the hope of symptom relief and placebo effect.

15) It is perfectly correct for GPs to prescribe drugs to relieve symptoms and to use drugs for self-limiting conditions and for non-curable conditions.

[I believe that it is perfectly correct for chiropractors to prescribe adjustments, etc, for temporary symptom relief, self-limiting, and non-curable conditions.]

16) When a medical doctor prescribes drugs following a presumptive or "guess" diagnosis, the doctor is subjecting the patient to measurable risk of iatrogenic disease, without the certainty of benefit.

17) The most important long-term harm to patients are caused by non-steroidal anti-inflammatory drugs, responsible for over 30% of all serious adverse drug reactions. **[wow!]**

18) 90% of drugs used today were developed since 1970. Medical doctors are poorly trained in drugs in medical school. It is impossible for a fulltime pharmacologist to have adequate knowledge of all the drugs in use. Prescribing problems resulting in morbidity and mortality are inevitable.

19) The drug industry has played upon the doctors' relative ignorance of pharmacology, to indicate that every new drug is effective and safe, which they are not.

20) It takes a few years of use before a drug's potential for harm is discovered.