

TC: How To Manage The Information
Explosion: What To Read

Robert P Lisak, MD, FRCP, FAAN, FANA

Departments of Neurology and Immunology and
Microbiology

Wayne State University School of Medicine
Detroit, Michigan, USA

DISCLOSURES: Commercial

- Grants: Teva Pharmaceuticals, Teva Neuroscience, Genzyme, Sanofi-Aventis, Biogen/Idec, Questcor, Novartis, Avanir
- Consulting: Questcor, Teva Pharmaceuticals
- Speakers Bureau: Teva Pharmaceuticals, EMD Serono
- CME: Teva Neuroscience, Bayer Health, Biogen/Idec, Novartis
- Expert Witness: Teva Pharmaceuticals, Bayer Health
- Stock/Ownership: None

TC: HOW TO MANAGE THE INFORMATION EXPLOSION: WHAT TO READ

- Learning objectives:
 - Understand the nature of the problem of multiple sources of information in medicine and biomedical sciences in general and neurology in particular
 - Increase your understanding of the many different types of sources of information
 - Increase your understanding of the differences in the types of sources including advantages and disadvantages of different types of publications
 - Develop your own approach on how to organize your reading

Disclosures: Editorial Boards

- **Editor in Chief: Journal of the Neurological Sciences 1998-2013**
- **Current Editorial Boards:**
 - **Clinical and Experimental Neuroimmunology**
 - **Clinical Neuropharmacology**
- **Prior Editorial Boards:**
 - **Neurology**
 - **Annals of Neurology**
 - **Journal of Neuroimmunology**
 - **Muscle and Nerve**
 - **Journal of the Peripheral Nervous System**

MY SUBSCRIPTIONS

- Annals of Neurology* (ANA)
- Neurology* (AAN)
- Journal of the Neurological Sciences**
- Brain
- Journal of Neuroimmunology**
- Journal of the Peripheral Nervous System*(PNS)
- Science* (AAAS)
- Journal of Immunology* (AAI)
- Clinical Neuropharmacology**
- Journal of Neuroscience*, @(SFN)
- New England Journal of Medicine
- JAMA Neurology (PKA Archives of Neurology)*('AMA')
- European Journal of Neurology* (EFNS#)

* Subscription comes with membership; # editorial relationships; @electronic only

WHAT TO READ

- Why are you reading?
 - Keeping up with the field of neurology in general
 - Improvement in care for patients including new treatments
 - Improvement in practice skills/technical
 - Specific subspecialty interest/s
 - Research interests
 - Economic and political issues
 - Update on industry issues and pharma-related issues including trial results
 - Social issues
 - Keeping up with science in general and as related to nervous system in particular
 - Certification and re-certification (continuous now)

WHAT TO READ

- Text books/Monographs
 - Disclosure (written, edited, section editor, author of chapters)
 - Hard copy but electronic versions are here (often published in both versions)
 - What is the role of textbooks in this era?
 - Many topics covered
 - Broad discussion of many diseases, disorders, tests, etc
 - Reference lists while relatively small (in texts, not monographs) have been vetted by someone who is knowledgeable in the field
 - Historical

WHAT TO READ

- Medical journals
 - General medical journals (NEJM, Lancet, BMJ, JAMA)
 - Neurology journals (Ann Neurol, Neurology, Brain, JNS, JAMA Neurology, JNNP, Eur J Neurol, J Neurol, Acta Neurologica Scand)
 - Subspecialty journals (Mult Scler J, Movement Disorders, JPNS, Stroke, Epilepsia, etc)
 - Review journals (Current Opinion type of journals, The Neurologist, Trends in.. Annual Review of..., etc)
 - Purely educational publications (CONTINUUM)
- Lay press
 - Newspapers
 - Magazines/periodicals
 - TV and radio
- 'The internet'
 - Including what your patients read

THE INTERNET

- Initiated by you: PubMed or other professional sites
- Google, Yahoo and other public search engines
 - Some science papers, some blogs, Rx information, pt information on Rx, Wikipedia, etc
 - No editorial oversight, ease of finding depends on popularity of the specific sites for that topic
- Not directly initiated by you
 - You used that site once before
 - Someone sold your name from some list but a topic of interest or potential interest
 - “How did my name get on that list?” (question related to both medical/science, and other sites)
 - ‘The Nigerian Prince and related scams’

THE LAY PRESS

- Print vs. TV/radio
- Varies in quality and sophistication
- Specific stories about diseases, clinical trials, general health, human interest stories (often combinations of these)
- Stories about companies, stock, drugs in pipeline, torts, regulatory agencies, civil suits brought by government agencies or others, recalls, etc
- Stories originated by 'Special Interest Groups' (often have an 'axe to grind')
- Your patients read/hear about these, the good and the bad

WHAT TO READ: *How to read it*

- Hard copy vs. electronic vs. both
- Regular subscriptions vs. individual articles only
- Continuous regular reading vs. as needed for particular issue/patient/problem/medication

ON LINE VS OPEN ACCESS

- ‘Open access’ are virtually always ‘on line’ but many hard journals are available as ‘on line’ only as an option, hard copy only or both
- Many journals make papers available on line after a period of time, NIH and other funding agencies require it for papers based on grants they funded
- Some hard copy journals will allow immediate open access if authors pay a fee
- ‘Open access’ only journals require payment by authors- is this ‘advertising’; depends on quality and stature of the journal
- Recent concerns about some open access journals simply being a new way to make money by the ‘publisher’
- Some are excellent (Plos One, J Neuroinflammation, etc)
 - Check out the journal by editorial board membership (sometimes not enough)
 - Look at a few articles in your area of interest/expertise, not just the one you are about to read

The Information Explosion

- **The Stendhal Syndrome (Effect)**

- Stendhal syndrome, Stendhal's syndrome, hyperkulturemia, or Florence syndrome is a [psychosomatic](#) disorder that causes rapid heartbeat, dizziness, fainting, confusion and even [hallucinations](#) when an individual is exposed to [art](#), usually when the art is particularly beautiful or a large amount of art is in a single place. The term can also be used to describe a similar reaction to a surfeit of choice in other circumstances, e.g. when confronted with immense beauty in the natural world. (Or too many choices in what is important to read?)

WHEN YOU READ, REMEMBER:

- “..the plural of anecdote is not data” (Lisak after Purpura)
- “What’s wrong with the patient in bed #4?” (Caplan)
- “For example, is not proof” (Old Yiddish saying)
- “Extraordinary claims require extraordinary proofs (Sykes after Hume)
- “Statistical significance does not necessarily mean biologic significance” (Lisak)
- “An appeal to authority is the last refuge of a scoundrel” (Lisak, with apologies to Samuel Johnson)
- “It can’t happen, until it happens” (Lisak)
- “Fuzzy speech (and writing) bespeaks fuzzy thinking” (adapted from Edwin Newman)
- “Medicine is a science of uncertainty and an art of probability” (Sir William Osler)