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DISCLAIMER

ALL CONTENTS IN THE MAGAZINE ARE THE VIEWS OF THE AUTHORS AND NOT OF THE EDITORIAL BOARD OR THE ASSOCIATION.

PRESIDENTS MESSAGE



Warm greetings to you.

The 'Lahari' - quarterly e-magazine of API DK chapter is fast becoming a favorite among us.

The fifth issue of 'Lahari' is coming out with the theme - "medical writing: quality vs quantity". Our Guest editor, Dr Archith Bolor's excellent work has resulted in this.

As usual, Dr Sadananda Naik, Dr Chakrapani, Dr Kishan Delampady and the editorial board have been working selflessly for the magazine.

All the contributing authors have given good articles.

I wish this Lahari reaches maximum people, spreading the knowledge.

Dr Ganesh Khandige
President
API DK
26-9-2021

VOICE OF EDITORS

Dear Colleagues,

We are presenting the 5th issue (Vol 2, issue 1) of API-DK LAHARI, the official publication of API-DK chapter. From this issue onwards we have started a new concept of having a guest editor for every issue who will oversee the articles related to the theme of the issue. Dr Archith Bloor is the guest editor for this issue and he has done a commendable and exceptional job in the said post. The articles related to the theme of our issue are intellectual treat and we the editorial committee sincerely hope that our readers will enjoy reading them.

As before, we have many other academic articles, write ups by the junior doctors, non-academic write-ups as well. The presentations of our monthly meetings have been compiled as academic articles and we do have an interview with a legend published in this issue. We sincerely thank the authors who have contributed to this issue and request for your continuous patronage in bringing out the forthcoming issues.

In addition to the whole issue, members will also receive each article as separate pdf. One article will be uploaded each week. Table of content with link to the articles at API-DK website will also be mailed. Members can share the content with their professional colleagues and friends. They can access the articles from our website. Editorial team is grateful to the office bearers of API-DK for facilitating these initiatives. Letter to the Editor section is open and we request the members to voice their opinion through this column.

DR CHAKRAPANI M – EDITOR IN CHIEF

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SECRETARY'S REPORT



Greetings from API D.K. Chapter.

In view of ongoing COVID 19 pandemic we held our regular meeting virtually.

We hosted online monthly meeting webinar on July 16, 2021 at zoom platform. Dr Maneesh Rai, cardiac electrophysiologist, KMC Hospital, Mangalore gave an interesting talk on “Identifying High Risk ECG.” Dr R Purushotham, consultant interventional cardiologist, AJ Hospital, Mangalore moderated the session. The monthly meeting was attended by 50 delegates, concluded with question and answer sessions.

In associated with MEDS (Mangalore Endocrine & Diabetes Society), API DK chapter conducted online webinar “Thyroid CME” on 7th August, 2021. Four interesting topics were there and 60 delegates attended the CME

The monthly meeting on August 20, 2021 was conducted online by API DK chapter at zoom platform. Dr Jayaprakash KP, Consultant Intensivist, Mangalore gave talk on “Oxygen therapy; basics and beyond”. Dr C R Bhat, Prof, Dept. of medicine, KVG, Sullia moderated the session. The second topic was “reactive hypoglycaemia” by Dr Shrinath P Shetty, Consultant Endocrinologist, KMC Mangalore and session moderated by Dr EVS Maben, Prof, Dept of medicine, AJIMS, Mangalore The monthly meeting was attended by 45 delegates and was followed by stimulating discussion.

API DK chapter hosted the monthly meeting on Sept 17, 2021. The scientific agenda was on “ Hump nosed pit viper-A venomous snake of different kind” by Dr B Sadanada Naik, Consultant physician, Moodabidri and session was moderated by Dr B L Samaga, Professor, Dept of Medicine, KSHEMA, Mangalore The monthly meeting was attended by 40 delegates.

Dr Kishan Delampady,
API DK Secretary, 2021-22
Consultant Endocrinologist , AJ Hospital, Mangalore.

CALL FOR ARTICLES

Readers are hereby requested to submit their articles for the next issue.

Submit to : editorapidk2020@gmail.com

Author instructions@page 98

GUEST EDITORIAL



Dr. Archith Boloor
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The other day, I was discussing with one of my students the ramifications of a Journal article that I had read. Eager to understand for himself, he asked me the name of the authors. I gave it to him and he came back to me in an hour: not with the same energy that he was abounding with but rather meek and defeated. Every link he found on the article was blocked by a paywall. He came back to ask for access to the article. I think most professors of my age experience this on a daily basis. If not this, a version of this story where I offer access to the article straight away. Because I know the answer to his question is behind a tollgate that must be paid in pounds or dollars.

He's not the brightest kid in the class, but he represents a forgotten quality. The very quality that brings hordes and hordes of the best minds in the country to learn the ways of medicine: Curiosity. Even we were once, and perhaps still are, curious little children. Asking questions, finding answers, and defending ideas is second nature to us.

Transitioning into a world run by the internet, I had always looked back with hope. At the risk of sounding senile: back in our days, our college would get monthly subscriptions to journals. The dusty print journals would arrive perhaps a month or two later than their publishing date, a glimpse back into the exciting now of scientific discovery. The residents back then would fight tooth and nail with each other to get their overworked hands onto the scant number of copies that would find their way into the library. Between then and today, we've gone through at least a hundred million medical breakthroughs. None of which still answer why we gate-keep education from our successors.

Quipping continuously about the quantum of issues that quake healthcare research, one always comes across the age old "Quantity Vs Quality" conundrum. As an author that predominantly publishes books, my perspective is a little different on this topic. In my eyes,

the argument has never been between quality or quantity: both are necessary for the advent of science. Not every scientific article needs to be a masterpiece. Only by scoring through infinite solutions for the same problem can you arrive at the best possible one. Having said that, getting your name on as many publications as possible should not be a rat race that we should be involved in. Much like movies; we all appreciate the National Award-winning features. But we also need everything in between to know the kind of stories that we want to propagate. Theatres would be a mighty dreary place if we only got movies that passed the Censor board seal of approval.

The real question is: why are we feeding into a culture that takes away the curiosity of our students. Why should a well-meaning student have to be disheartened by a price tag and walk away from a webpage? Capitalism has ruined enough things for us: are we going to let it ruin our future doctors and researchers too? Perhaps there is no answer; but why is nobody even asking these questions?

The onus is on us. We have a very real responsibility to the future generation of medical professionals. A responsibility to nurture their creativity, to fuel their growth and to keep them as we once were: Curious little children. So, ask those difficult questions, find and act on the right answers and defend their right to learn.

It is said "Writing, like every other art, cannot be learned wholly from books or lectures, but can be learned largely by experience. The best training is to start the task and persevere. Anyone can start writing but only a good writer can finish the task." --- True. Each new paper presents unique difficulties. Not every paper will get you the praise and honours, once it is written up; writing is just the last step in research and strong writing cannot compensate for a weak experiment. There are problems, the plagiarisms, the predatory journals, The process must continue...

Good medical writing is an uncommon skill, and those who have it need to maintain and sharpen it.

CARTOON BY DR G G AKSHAY PRABHU



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Commentary | Published: 10 April 2012

The growing **inaccessibility** of science

Donald P. Hayes

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Misconducts in academic medical writing - Brief concepts



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Introduction:

Reporting the facts of scientific research is the only way of communicating new knowledge to the medical fraternity. Majority of the scientific research is conducted appropriately in the universities and reported honestly but a few authors invent or manipulate statistical data to reach fraudulent conclusions. (1). Journals publishing these data rely on the trust bestowed on authors, peer reviewers, editors, and publishers, who remain honest, following the rules and ethics of scientific research.

Indeed, in the recent years due to academic peer- pressure, the chase of an improved impact factor, h-index, and number of citations, which form the base of the current evaluation system, have led to an incontrovertible true “publish or perish,” ultimately resulting in misconduct in medical writing. Misconducts may occur, ranging from less serious violations of ethical rules to most serious ones. In ascending order of severity, these include redundant publications, authorship misconducts, plagiarism, and data falsification or fabrication to name a few (2) as depicted in Table 1.

Table 1. Categories of scientific and publication misconduct reported to the Committee on Publication Ethics (COPE) from 1998 till date: (3)

- Carelessly or deliberately permitting basic faults in study design, performance or documentation which may prejudice the findings.
- Failure to follow accepted ethical procedures when involving live subjects (animal as well as humans), such as conducting experiments on human subjects without properly informed consent or on animals without regard to national regulations
- Breaches of patient confidentiality or failure to obtain informed consent to take part in research (or for permission to submit case reports)
- Inadequate or partial disclosure of how data were obtained and analysed with explanation for any exclusions
- Electronic manipulation of images in such a way as to significantly change how they are interpreted
- Improper award of authorship: all authors should have made significant contributions to the conception, design, analysis or reporting of the study and no such author may be excluded from final attribution
- Failure to declare any competing interest, especially financial, which might bias a study's conclusions or lead readers to doubt the conclusions
- Attempts at redundant or duplicate publication
- Breach of copyright and plagiarism

Authors are not the only ones who may be guilty of misconduct. Editors, publishers and peer reviewers also have responsibilities: for example, peer reviewers have a duty to maintain confidentiality prior to publication; they have a duty not to allow professional or personal jealousy or rivalry to influence or determine the advice they offer to the editors in accepting or rejecting the article and they have a duty not to cause undue delay in peer- reviewing of a submitted paper.

Editors maintain scientific integrity by following good practice guidelines, such as those published by the International Committee of Medical Journal Editors (ICMJE) or the Council of Science Editors (CSE) (4) by cross checking significant inaccuracies or misleading reports; ensuring that proper ethical standards have been followed in the conduct of research or clinical practice forming part of submitted or published papers, respect to patient confidentiality.

Various types of misconduct: (1)

1) Submission of fraudulent data:

Data fabrication (forging) occurs when a researcher invents all or part of the presented results. Data falsification occurs when the researcher manipulates data (“cooking” process) or cuts corners of data (“trimming” process), leading to inaccurate conclusions. An editor of the journal during the processing stage of a paper may be suspicious that the results “Are too good to be scientifically true”. It is the proper Statistical analysis of a paper, which will usually demonstrate that data must have been fabricated. (5) Reviewers are the frontline academic workers, who detects about the honesty of a paper. Publication of Fraudulent papers may corrupt future research by others as they continue to be cited, divert resources to projects doomed to failure as they are predicated on the false data and, ultimately harm patients. (6) Articles with questionable data are retracted with a “retraction notice” published in a later issue of the journal.

2) Incomplete or improperly processed data:

To enhance further research funding, inconvenient data are sometimes excluded from a study or that the most advantageous statistical analysis is included in the research work. (7). Even with full disclosure, there exist a publication bias that there is a greater likelihood that positive studies will be accepted and negative studies rejected. An emerging problem is that of the improper manipulation of images. Using advanced computer programming, Filtering options are used, so that the colour of the images are changed and sharpened. It is the responsibility of the authors and editors to trace this form of misconduct. The authors should pre-disclose the methods used to analyse the data, processing of images and any issues of possible bias in the methods and discussion sections. (1)

3) Breaches of confidentiality and patient/subject consent:

International Committee of Medical Journal Editors (ICMJE) guidelines state that all patients have a right to privacy, which should not be infringed without informed consent. Authors and editors must also take care that proper consent was taken for that particular study only. In general, approval regarding consent and research topic would be taken from local ethical committee or institutional Ethical committee (IEC) from the principal investigator. Editors and peer reviewers should maintain the confidentiality of the submitted papers till published. Reviewers should not share the details of the authors or contents of the papers to others to read without the editor’s permission or use in their conference presentations. (1)

4) Authorship issues:

Authorship in any published article has important academic, social, and financial implications. Therefore, ICMJE has developed 4 criteria for authorship that can be used by all journals. (8) According to these, authorship should be based on (a) substantial contributions to conception, design, analysis, and interpretation or acquisition of data; (b)

drafting or revising critically the article for important intellectual content; (c) final approval of the manuscript; and (d) agreement to be accountable for all aspects of the research. (8) The ICMJE criteria for authorship state that all persons designated as authors should qualify and each should have participated sufficiently to take public responsibility for the contents. (1)

The “honorary authorship” is one where the authors cited, do not meet the criteria for authorship, for example senior member or heads of department who was not a part of the research study. Another authorship issue is that of “ghost authorship”, where an individual who has substantially contributed for authorship does not appear on the list of authors (ghost writers). (8) This is commonly seen in the pharma industry- financed publications. Most commonly is the “gift authorship” when authors’ friends or colleagues are included without substantial contribution, with the authors expecting similar inclusion of their names in their future research articles (give and take policy). (8) Majority of researchers, however competent, do not have literary skills so may employ a staff writer. Dilemma is- whether a medical writer who has assisted in writing the manuscript should be mentioned in the paper’s contributorship or statement of funding.

5) Competing interests:

By publishing papers in high impact journals, authors enhance their curriculum vitae, become stronger candidates for appointments and consequently increase their academic visibility. Editors may favour certain topics over others because of belief that they might catch the attention of the public media. Reviewers may be tempted to allow personal grievances or favours to affect their judgement. The most serious issues are financial or commercial but personal and political conflicts can affect judgement. The solution is that the journals should mandate all authors to sign a declaration on submission of any competing interest as “None” or “No competing interest to declare”. (1)

6) Redundant and duplicate publication:

“Duplicate publications are defined as papers that substantially overlap with one prior paper, published in print or in electronic media and share at least one of the same authors.” (9) The two articles may be almost identical characterized by some as “self-plagiarism,” given that there is also omission to cite the original paper. Another type, generally considered less serious, are “salami” publications. (9) These are defined as the attempt to inappropriately increase the number of publications yielded by a particular research by subdividing the existing data into smaller separate publications resembling “salami slices,” finally decreasing their integrity and consistency. (2,9)

All medical journals require authors to state that the work has been neither published nor is being considered for publication by another journal. However, there are certain situations where duplicate publications are allowed including: (a) articles previously published only in abstract form, (b) publications in English directed toward a worldwide audience of data previously published in a local language and vice versa. (1)

Nevertheless, duplicate publications may have a significant effect on systematic reviews and meta-analyses if the same data are counted repeatedly. More frequently Reviewers and readers are often the first to discover duplication, through electronic searching (PubMed or google).

7) Plagiarism:

Plagiarism or intellectual theft is generally defined as “the act of using another person’s words or ideas without giving credit to that person.” (2,10) When direct verbatim replication of a previously published work is used, it should be in quotation marks followed by a reference to that work. E.g.: while referring to IPC sections or Supreme court judgements the entire legal section or judgements should be in verbatim language and with quotation marks.

Authors must realise that, when quoting the work of others, they must make it clear and provide a reference to the original material. It seems to be a worldwide phenomenon that school and university students are using ‘cut and paste’ techniques from the internet. Today’s anti-plagiarism software (e.g., iThenticate) is widely available to uncover cases of plagiarism and is routinely used by many medical journals and institutions. (10) However, copy-pasting text and replacing specific words with synonyms to avoid software detection is known as rogeting (after Roget’s Thesaurus) and renders identification of plagiarism difficult. (2)

Conclusion:

A potentially harmful cost of publications’ misconduct is health damage or even loss of life due to misinformation in the medical literature. There is damage of research careers for those who commit misconduct, and so young researchers should avoid such misadventures. Plagiarism in an undergraduate level or in a postgraduate dissertation may get little attention, but later in their career, when applying for an academic post abroad their Cv’s will be scrutinized and will jeopardise their chance of employment. In the present era of academic promotions and mandatory publications by the regulatory bodies there generally exists publication pressure and writing misbehaviours. To avoid such academic misconduct and to sustain research integrity and their career, the academic writer must strictly follow the guidelines and advice on medical writing. (2)

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Medics writing - Quality Vs Quantity



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Medical writing encompasses the art and science of writing on matters related to health. This takes several forms, from writing a health column to authoring books or publishing in various scientific journals. For the purpose of this write-up I will focus on the writing in scientific journals.

Why is medical writing important ?

Medical writing helps to educate patients, colleagues and one self. The medical literature is important to make treatment decisions and deliver evidence- based medicine.

A review of the literature helps in acquiring knowledge, and learn from the experience of others. Medical literature also forms the basis of future research and helps governments in making policy decisions.

Is medical writing essential ? In a healthcare system that is already overburdened, is it really worth the time and effort to spend time on medical writing instead of dedicating the same to see a few more patients, do a couple more procedures or just spare that time to counsel patients. The answer is absolutely YES. We need to devote time to medical writing, which is dependent and interlinked with good research and clinical care.

The process of chronicling one's work into print is absolutely essential if you have to learn from what you do. In the debate of what should be given priority- quantity or quality. I think both are necessary.

The quality of medical writing is directly related to the quality of research. Simply put, good research will lead to good papers. While, randomised controlled trials are at the pinnacle of what constitutes good research, there is a place for all kinds of research.

The classical example is the letter to the editor written by William McBride who noted a few cases of children born with congenital anomalies and posed an innocent question in a publication that changed the way we use drugs in pregnancy. There are several rare diseases for which randomised trials are impossible, in all such situations, every case report and case series adds to the knowledge and gives the clinician some useful tips on the management of a patient.

To ensure the quality is maintained, one must dedicate sufficient time to train students in conducting and analysing research. This starts during undergraduate training.

The model used by clinical research training groups such as CReDo is an excellent model and can help shape the research career of students at an early stage. This will hopefully make the research work more meaningful and translate into both an improved quality and quantity.

The only trouble with quantity is when poorly designed studies looking at the same aspect are conducted in the name of generating Indian data, or local data. I think generating Indian data is important, when differences are expected in the findings and such differences are likely to impact the management. The novelty, feasibility and applicability of research are as important as the study design.

We must encourage researchers to collaborate, get people involved from various disciplines. This will improve the quality of research.

The last important aspect is conduct of trials; researchers must focus on conducting clinical research following the best practices. This includes maintaining the quality of data, compliance with the protocol, data and safety monitoring and a robust internal monitoring system. Though some of the tasks take extra time and effort, but they ensure the quality of work is robust and the results are reliable.

So often in our clinics we feel that we can conduct studies at a fraction of time compared to the western centres and while our patient numbers are high, conducting research is not only about the numbers. It's about quality of work.

To conclude, we can not afford to ignore the importance of research and medical writing and these habits must be developed at every level.

Honest quality in medical writing



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As science has progressed, the number of publications have also seen a phenomenal increase and more so in the recent times. The quantity of medical and scientific information is constantly increasing: global scientific output doubles every 9 years. (Nature News Blog) This has partly to do with the number of research being undertaken, the increased awareness and dedication about publishing and also partly owing to the fact that it is mandatory and there is an availability of easy options to publish.

In research environments, more value is usually attached to number or quantity of publications. The more the number, the greater the chances of incentives, perks, promotion etc. Quality versus quantity has always been an issue which many have been voicing concerns about. In fact, such an emphasis on quantity has helped foster some pseudo research as well as mushrooming of low quality, trivial, repetitive publications as well as work with questionable ethics. In today's world, it has become an imperative part of job profile to publish – the number of publications a researcher or a medical professional has, determines the perks or retention as well as the credibility. These factors have a role to play in determining what gets published.

Why is quality important?

The progress of science is dependent on the quality of evidence available, which in turn depends upon the peer reviewed quality publications in reputed scientific literature. The better the quality of the articles that is used in the literature review, the stronger the future research will be. If the articles used are of inferior quality, there is a risk that the conclusions drawn may be unfounded. Similarly, in medicine, the practice is influenced by the published literature – it has a potential to change the preventive, diagnostic, therapeutic and prognostic approach.

How is the quality of publication determined?

How do we define or determine quality of medical writing and publication? Quite simply, the definition of quality is largely dependent on the perspective of the individual. However, there are various ways and parameters which can help us in determining the quality of the published literature. Often the rat race to publish and to have numbers leads people to publish mediocre papers just for the sake of publishing. At times, the gullible newcomer get trapped into the false propaganda by the so called predatory journals. As per a consensus definition, predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices. These journals do more harm to science than good and have been referred to as global threat. They accept articles for publication — along with authors' fees — without performing promised quality checks for issues such as plagiarism or ethical approval. Naive readers are not the only victims. Many researchers have been duped into submitting to predatory journals, in which their work can be overlooked.

Quantifying the quality of a scientists output is difficult. Publishing papers in journals gets increasingly more difficult as standards increase and publishers compete to survive in a cut throat world. So the question arises, is it possible to quantify the cumulative impact and relevance of an individual's scientific research output?

There are several indices and metrics to judge the quality of journal and/or article. There is impact factor (IF), quartiles, CiteScore and also the h – index. While the former three take into account the data for the journal and this are indicators of journal performance and quality, the last (h-index) measures the broad impact of an individual's work. While proposing the index h , defined as the number of papers with citation number $\geq h$, as a useful index to characterize the scientific output of a researcher, Hirsch (after whom the index is named), suggested that the h-index avoids all of the disadvantages of the criteria considered earlier, and usually can be estimated very easily.

Further, Hirsch argued that “two individuals with similar *hs* were comparable in terms of their overall scientific impact, even if their total number of papers or their total number of citations was very different. Conversely, comparing two individuals (of the same scientific age) with a similar number of total papers or of total citation count and very different *h* values, the one with the higher *h* was likely to be the more accomplished scientist.”

The scientific quality of a paper also depends on the research performed and on the writing skills of the author(s). Publication in a high-quality journal (with high impact factor, cite score and quartile) gives the authors an international recognition and helps to improve their CV but this may come at a price since many of these journals apply rather high publication charges. Thus several of these open access so called quality journals with high impact may be out of reach for majority of researchers in India and developing world.

Another perspective is about the sheer magnitude (numbers) of the data itself. When it comes to the specialized or high end diagnostics, procedures etc, the availability of these may be limited in most places in a developing country like ours. On the contrary for simpler and rather some disease cases, the numbers available may be really huge when compared to the western centres. However, we need to remember that the quality is not determined by the numbers in such instances. The demographics and economics have a role to play in such cases and we need to keep it in mind. So, we need not inflate numbers or try manipulation or resort to unethical practice/scientific misconduct merely to get published. Academic and research integrity is of utmost importance and it would also be a quality that would be imbibed by those in our circle of influence as we act as role models for them.

A few ethical issues

This brings me to a few ethical issues which may be looked upon from the point of view of the quantity vs quality debate in research and publication.

Salami publication or Salami slicing - Salami slicing refers to splitting of data derived from a single research idea into multiple smaller “publishable” units or “slices.” This is sometimes done to increase the number of output from the same research in order to derive maximum mileage out of it. Publishing unnecessary and repetitive information increases the amount of literature, but not the amount of knowledge. If closely related data from a single group is divided across several papers, readers who access only one of the papers may misinterpret the findings. Further, multiple reports may cause a set of findings to be given more importance that it deserves.

Duplicate/Redundant publication – Duplicate publication, multiple publication, or redundant publication refers to publishing the same intellectual material more than once, by the author or publisher. Again, this is a practice where the author is trying to increase the number of his/her publication without actually having the research data/material. This leads to skewed

dataset and when someone tries to perform systematic review or meta-analysis, such studies would lead to biased evidence and conclusion.

Authorship disputes – These have been explained in another section of this issue, however, it would be pertinent to note the gift, guest and ghost authorship with the intention of publishing larger numbers and also to gain some favours. These practices can lead to compromise of the quality of the reporting of science. This also triggers a *quid pro quo* phenomenon where the favour is returned at times by gifting authorship in turns. Prevalence of honorary and ghost authorship had also been reported in Cochrane systematic reviews which can lead to speculation, cast doubts and put one of the highest credible databases into question. The prevalence of number of a high number of co-authors is another trend which is on the upswing and has been reported. It has been suggested that it can be a pointer towards favours being returned leading to collective increase in number of publications by a group of researchers who may be gifting authorships. Such practices can be detrimental.

Conflict of interest - A conflict of interest exists when professional judgment concerning a primary interest (such as patients' welfare or the validity of research) may be influenced by a secondary interest (such as financial gain). Perceptions of conflict of interest are as important as actual conflicts of interest. Conflicts can occur for other reasons, such as personal relationships or rivalries, academic competition, and intellectual beliefs. Agreements between authors and study sponsors that interfere with the authors' access to all of a study's data or that interfere with their ability to analyze and interpret the data and to prepare and publish manuscripts independently may represent conflicts of interest, and should be avoided.

Finally... Is the quantity vs quality threat real?

Unfortunately, the external and internal pressures to produce results and publish them rapidly jeopardize scientific objectivity and academic honesty worldwide. The threat is unlikely to disappear as long as universities use how many publications a scholar has produced as a criterion for graduation or career advancement or funding agencies look at these for awarding grant. The publish-or-perish culture, a lack of awareness of predatory publishing and difficulty in discerning legitimate from illegitimate publications fosters an environment for predatory publications to exist.

However, that been said, just continuing with mediocrity without looking back may lead to volumes. By simple logic, it may seem that the volume would lead to larger number of reads and eventually someone important may notice. Possibly the number of publication would result in researcher name being noticed several times thus making it nearly impossible for the researcher from being ignored. Nevertheless, nothing else can be further from reality. The impact of a researcher and his noteworthiness also depend on being consistent and continuing to be focussed and meticulous.

The debate on quality and quantity is ongoing. While we all would agree that quality and not quantity should dominate, but with all the emphasis on numbers of publications, the system somewhere has become partisan and probably even corrupted.

However, a recent analysis had found a strong correlation between productivity (number of papers) and impact (number of citations). The popular notion that there is a risk of confusing quality with quantity lacked empirical support. The authors also concluded that producing high impact papers required certain output levels depending on the field under study.

Some suggestions for dealing with the issue of quantity with poor quality

- Awareness regarding the scientific research and ethical issues must be created by a series of training programmes and periodic reinforcements.
- Policies of incentive and promotion need to be realistic without setting targets that may lead to unfair means being adopted to gain such advantage by the researchers.
- Grants application must not place too much emphasis on past track record especially the number of publications.
- While citing research, the veracity of the same must be ascertained and dubious, fraudulent, duplicate or retracted articles must not be cited as they may put the present work into question.
- Using templates could help the beginners and early career researchers, junior faculty to adhere to guidelines and the quality parameters.
- Seeking the peer feedback and suggestions by the researcher or author(s) may be very useful to improve the quality of the writing.
- Collaborative work culture is useful in fostering growth, quality, and multidimensional inputs thereby building great interdisciplinary teams with complimentary abilities, which can be a real asset in medical writing.
- Researchers and authors with exemplary conduct must be recognised and rewarded.
- Institutions must have policies to deal with scientific misconduct. Penal action must not be the first action but the last option mostly reserved for repeated misconduct and proportionate to the act committed. Focus must be on to reassure and reform.
- An office of Research Integrity with a committed and understanding officer in-charge could go a long way in establishing a culture of research and quality output.

To conclude

Results from scientific research, besides offering solutions to problems facing humanity, bring honour, fame and international recognition to the scientist/author who produced the landmark breakthrough discovery, innovation and published the paper. These critical and profound roles that research plays demand that research is conducted with great integrity and in conformity with codes of ethical scientific conduct. When it is the intent that is questionable or the intent is to deceive then it jeopardises research and others need to be

cautious. The genuine intent with low resources must not be equated with questionable ethical practices or the predatory journals. Good quality work disseminated in a good quality factor, everything else including quantity is secondary. If the work is of high quality, the paper produced would definitely be of high value and would definitely be noted provided it is in a peer reviewed quality journal. It is our duty and responsibility as researchers and medical practitioners to keep our ambition ethical and compliant with academic honesty.

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Balancing the tight-rope of quantity vs quality in medical research today



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Recent years have witnessed scientific research emerge as an integral part of every academic clinician's job description. On the surface, this is an admirable pursuit aimed at growing the body of evidence to support our everyday clinical decision making while simultaneously enhancing vital skills such as critical thinking and interpretation of evidence. Academic institutions, both in India and abroad, have increasingly employed publication metrics to guide promotions, grants, funding and employment. Furthermore, a sense of respect within professional circles is developed, often a requisite to becoming a leader in a particular area of the medicine.

As with most things however, there are at least two sides to this coin. The growing 'publish or perish' mentality often pays its pound of flesh in quality. In the words of Daniel Sarewitz, "Scientists must publish less, or good research will be swamped by the ever-increasing volume of poor work." The growing popularity of open-access and non-indexed journals has greatly eased the burden of publication. Compounded by the tremendous search capabilities of the internet, and contrary to popular belief, this has translated into greater citations of low-quality and even downright categorically wrong science. A perfect example of this is the Surgisphere scandal that shocked the medical community when a group of highly acclaimed researchers at Harvard University were forced to retract their publication on antihypertensive use in COVID-19 from the most prestigious of medical journals, the New England Journal of Medicine. However, the more interesting part of this story is the fact that this paper has gone on to be cited over 500 times since the retraction – this is despite the widespread media attention that this incident garnered. Continuing to pick on the NEJM, a decade-long analysis by Prasad et al. of articles published between 2001-2010 revealed that 40.2% of practices that

went on to become subsequent standard of care were subsequently reversed. Both of the aforementioned examples highlight the problems with medical research even at the highest echelons of medical academia today. These issues are magnified several-fold in the lower strata of journals. The negative implications of this publication pressure range wide and are well documented. Researchers often favour tackling easier, less meaningful questions that can be answered with available data rather than the harder, though more clinically relevant questions that really matter. This has led to the coining of the rather tongue-in cheek concept of the “least publishable unit” – i.e., the minimum amount of information that could warrant publication. Further, the publication bias of a number of high impact journals towards favouring positive results over negative ones, also encourages “p-hacking”, the practice of slicing data into more convenient pieces to find a statistically positive narrative.

Though appealing in to garner increasing number of publications in the short term, these publications could turn embarrassingly glaring in their shortcomings when looked back upon years later when the author is a leader in the field. From a more pragmatic standpoint, a certain publication often dissuades future work on the topic, since the novelty of the topic and consequent chances of publication are lower. This could often render the paper the sole source of guiding evidence on the topic and result in a direct detrimental impact on patient care. Declining quality control and reviewing practices at the level of journals passes the onus for responsible publishing upon the authors. The tremendous clinical demands of high-volume patient care and the lack protected time afforded for research, which is often a customary part of practice abroad further compound the difficulty of executing high-quality research in India.

So, at the end of the day, what is the solution to this 21st century Gordian Knot. On the one hand, there exists the undeniable need for publications for professional growth. On the other there is the need to publish high quality responsible work for a number of ethical and professional reasons outlined above. Like most important problems, the solution is not an easy one. Firstly, the medical education must incorporate a practical and working knowledge of research methodology and critical appraisal into the trainee’s armamentarium. Through post-graduate training this must be refined through the critical dissection of major landmark trials in journal clubs and more importantly on an everyday basis in the wards. Perhaps the most fundamental and vital component to this is strong mentorship from an early stage and through every step of the process. The scientific method of clinical observation, hypothesis generation and experimental testing that has served as the bedrock of clinical research for centuries must continue to live on. As Abraham Lincoln once said, “If I only had an hour to chop down a tree, I would spend the first 45 minutes sharpening my axe.” As chopping trees continues to fall out of favour in the medical community – let us instead apply this logic to the topic at hand. The first and perhaps most crucial phase in the project must involve identifying a meaningful and relevant clinical question and then formulating a plan to address it. Even a well written case report on an interesting finding or intervention can add tremendously more to the clinical practice than a low-quality study of thousands of patients. In summary, this tightrope walk of quantity vs quality is one that is becoming increasingly inherent to every clinical academic today and is one that we all must strive to improve at for ourselves as clinicians and more importantly for our patients.

Quality research - Are we there yet?



“Potential is not an endpoint but a capacity to grow and learn.”

- Eileen Kennedy-More

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In the present era of evidence-based medicine, research plays a vital role in clinical practice. Quality medical research is needed to update the health care policy, standardize health care delivery systems, and improvise the treatment protocols. According to the World Health Organization, high-quality research is essential for attaining the highest possible level of health by all people. Both the quality of teaching and patient care improves through active research and benefits society at large.

As medical education is evolving tremendously, clinicians face the challenge of keeping pace with knowledge. Being adult learners, clinicians and practitioners are interested in learning what they think is relevant for them. With the mushrooming of the journal industry, a lump sum amount of information is getting added to the medical literature daily, and be on a par with this is not an easy task. The greatest challenge above all this is to identify the quality and significance of the study. Predatory journals are growing daily, most of them not even peer-reviewed. Often, the quality of the medical write-ups is under-looked. The ability to critically analyse the arguments presented by the author and the nuances of interpreting the fact, to identify the fallacies irrespective of the author or journal are required skills for quality assessment of an article. Sadly, the existing medical education does not provide adequate training for attaining these skills.

Medical writing is a unique intellectual challenge. Good work should have brevity, accuracy, and clarity. With time, practice and attention, one can sharpen the writing skills. Three elements needed for an excellent scientific material are focus, organization, and integration. Focus refers to the clarity of the research question, whereas organization refers to the logical sequencing of ideas and drawing reasonable conclusions. With focus and organization, a

good researcher can integrate this into a coherent message. Citations are also necessary to avoid plagiarism and enable us to give credit to their work.

As a nation, our contribution to medical research is minimal when compared to the western world. We are far behind, both in quantity and quality, and considering our demography, we have the capacity and capability for much better execution.

If we introspect and look for the hurdles as to why we are lagging, the reasons are apparent. As a medical teacher, I feel the lack of proper research training in medical institutions is one of the major culprits. Students are improperly trained in medical research and are not motivated for the same. Students hardly get mentored under good researchers. The lack of knowledge about grant proposals and funding agencies creates another hindrance to good quality research. Busy and tiring clinical schedules drain most of our energy and hardly any time left for innovations and research. Indian doctors also lack the interest to take up clinical research as a full-time profession as compared to the west.

Poor command of the English language is one of the barriers for a few. Apathy from higher authorities and lack of proper research funds is another reason. Good research needs adequate funding. Government investments towards medical research are meagre. So, a novice researcher may not feel research is an inspiring job. We also have poor interdisciplinary and multi-centric collaborations compared to the west. These types of liaisons yield better research results. In India, this is not a usual norm and needs furtherance.

In 2009, the Medical Council of India took measures to encourage research from medical schools, making primary research mandatory for the promotion of medical teachers. It led to the mushrooming of predatory journals. In the whole process, ethics may get jeopardized. The compromised ethics to add articles for seeking promotions may do more harm than good. It creates a discredit for Indian medical research and leads to the growth of predator journals affecting the quality of research. Plagiarism, the act of misinterpreting another work as your own, also affects the quality of literature. Few researchers glanced at the barriers to quality research in India, and findings echoed the same notions. Lack of statistical knowledge, busy work schedules, lack of funds and resources were the causes identified.

However, the scope of research is enormous in India as clinicians here encumber diverse communicable and non-communicable diseases. Multidrug tuberculosis, typhoid, malaria, cholera, and many others were eliminated from many western countries but are still prevalent in India. The Indian health system needs to improvise clinical research. We must lead the way for a better and healthy world. At the grass-root level, medical institutions should promote methods for a sustainable research culture. Added Incentives for high-quality research merits consideration. Institutions should take up the lead to motivate young researchers and organize training sessions for good quality research.

Policymakers should recognize the existing lacunas and should take necessary measures to aid good quality research. The budding clinical research in India needs encouragement, funding, training, and constant support to unleash the hidden potentials. As medical teachers, we should be proactive and inculcate the habit of active research. We should be the trendsetters for future research in India.

Sound aspect of a medical writer



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Medical write up is nothing but both a science as well as an art. It requires an understanding in medical science and an aptitude for writing & involves writing scientific documents of different types which include regulatory and research-related documents, disease or drug-related educational and promotional literature, publication articles like journal manuscripts and abstracts, content for healthcare websites, health-related magazines or news articles.

Obviously scientific information in these documents needs to be presented to suit the level of understanding of the target audience, namely, patients or general public, physicians or the regulators & writers require an understanding of the medical concepts and terminology, knowledge of relevant guidelines as regards the structure and contents of specific documents, and good writing skills. Medical writers also need to be familiar with searching medical literature, understanding and presenting research data, the document review process, and editing and publishing requirements. In addition, a thorough knowledge of specific requirements for different types of medical documents, and keeping up to date with the relevant guidelines is a must.

It's true that demand for medical writing is growing steadily over the years.

A student's perspective to medical writing



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Since as early as 1994 when Fletcher (1) first used it, the phrase 'publish or perish' has been making the rounds in the tall, long and dimly lit corridors of the medical colleges across the country. Twenty-seven years down the lane and this phrase has only gotten more relevant, important and real.

Medical students and early career researchers often find it very tedious to cope up with the pressure of keeping up with their subject of interest (with new evidence being made available almost every fortnight) and being expected to churn out new evidence (both as a part of their curriculum and as an expectation of them being an academic, functioning in the era of rampant scientific publication) but, what is not taught to them is that not publishing an article but making an impact with the research that you do is of paramount importance. The very fundamentals of research and publication need an overhauling. MCI (now NMC) makes it obligatory for PG students to undertake a study in the form of their thesis, but, sets no guidelines for the quality of the study, its outcome, publication or the impact it should have. Making PG thesis a rather wasteful activity with majority of the students fudging data, manipulating results and deleting the file from their computers once the thesis is submitted. Such a waste of time, energy, resources and opportunities.

To further complicate matters the process of publication is in itself very long, tedious and tiresome with some journals taking weeks if not months to even communicate their decision to the authors. Even when a decision to accept an article is made, the peer review again takes a huge chunk of time delaying the timeline of publication significantly. It is here that predatory journals (2) come into play. These journals, often not indexed provide an easy access to researchers to publish their study in a timely manner, without proper peer review for a hefty sum of money and many researchers without realizing that they would be wasting their study by publishing it in such journals go ahead and do so. It's very important to teach early-stage researchers to invest their time and energy in projects which are properly designed, adequately conducted, well presented and guide them to publish in peer review, indexed journals (sadly, however time consuming it might be).

We live in an age where quantity and not the quality of your paper matters. This can be further elaborated by the fact that in the year 2020 alone, 270,000 articles were sent in for publication on COVID alone (3) with only a handful of them being original articles of worth.

Until the collective scientific community comes to realise that it's not a rat race where those who publish the maximum number of papers win, until we stop estimating the worth of an academic by the number of papers that he has published this trend in medical writing which is spiralling downwards will only further deteriorate with the passage of time.

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The Yin and Yang of medical writing



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Medical writing – Quality vs quantity?

The ‘publish or perish’ mantra towards research has been floating around for a while. In an era of booming medical research, medical professionals find themselves under constant pressure to conjure up quality research publications in sufficient quantity over a limited time period. Easier said than done.

For an idealist, quality would always trump over quantity. A rationalist, however, would argue that the release of every movie should then result in an Oscar rather than mass entertainment. In the absence of any objective definition for what is ‘quality’ and how much defines ‘sufficient quantity’, a medical researcher would always be in a quagmire. With the busy nature of our clinical practise and in the absence of an exclusively partitioned time period dedicated for research, it’s a gargantuan task for one to be coming up with novel research ideas while trying to balance output in terms of numbers.

In my opinion, the question of quality vs quantity is flawed. In Chinese philosophy, yin and yang represent the opposite sides of everything – their positions keep changing, but balancing yin and yang is essential for maintaining vitality and vigour. Likewise, quality and quantity must be looked upon as the yin and yang in medical writing, one balances the other. A professional medical writer may not experience a ‘eureka’ or ‘apple falling’ moment with regard to novelty but he/she can definitely strive towards enhancing quality by preparing a manuscript with a robust study design, complying with international best practice and reporting standards. A writer can enhance the quantity of publications by ensuring that research which should be reported is reported. Failing to publish important research data retards scientific progress and the quality of patient care, the latter being the ultimate goal amidst the nugatory quality vs quantity debate.

P.S- I was asked to draft this in 450-500 words, but this is 350. I will let the reader decide!

Publish or perish



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There is no dearth of knowledge in this era of open access where what was reserved for the academically elite is now available to even the new entrant doctor. Transformation from the time when climbing up ladders physically and finding journals from dust laden shelves of the archives to the current times when even the most remote archives of the 1800s and 1900s be accessed while enjoying a cup of coffee with a click of button has been tremendous. Similar has been the story with respect to publishing and reviewing - from the comfort of one's office or home. However, has this been a setback in terms of quality is a matter of debate. Every year there is 8-9 percent increase in the number of papers published in the field of medicine alone. Hospitals, medical schools, and research labs have entered this race to publish, to establish their superiority over other institutions. Doctors and medical students have been forced to write - 'Publish or perish' is the new rule in vogue.

The quality of medical writing has seen a transformation in this regard. Emphasis has been given to data, statistics and evidence which is of course, the backbone of science. However, there is little scope for penning down opinions, hypotheses, expressions of doubt, observations which are statistically insignificant but may still be clinically relevant. This to me is the scaffolding to the growth of medical science. We have seen journals being taken over by truck loads of RCTs and this brings the fall of an era of descriptive writing. One cannot simply forget the 1850s article of John Snow about the description of the water pump on Broad Street and the hand drawn map to go with it. Descriptive writing often meets roadblocks today in the form of 'level of evidence'. With the advent of artificial intelligence there will come a time, not far from now, where the RCTs and other complex statistical calculations can generate themselves from prefed computer based medical data pools without an actual human intervention. With the modern scientific writing being the food for evidence-based medicine, I fear the lack of spice in the form of clinical descriptive medicine which may make science less palatable for the future generations.

To a person with love for science a study with a negative result which is statistically insignificant is as interesting as a result with a p value of less than 0.01. We are consumed by mortality rates, hazards ratios, Forrest plots and scatter diagrams that we have stopped enjoying hand drawn diagrams, descriptive essays, anecdotes, and clinical experiences. In short, current era of medical writing is a multinutrient capsule containing everything necessary for evidence-based medicine but even after you swallow it, you may still feel hungry.

Challenges in Clinical Research: Are we Compromising the Quality?



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Medicine as a whole has not just advanced and expanded over the past five decades, but currently is at full throttle, making quantum jumps in improving the standard of care and positively impacting patients' wellbeing. In recent times, there has been a paradigm shift in the way medicine is practiced — Superior radiologic, endoscopic, and pathologic modalities of diagnosis, including the use of technological innovations, have improved diagnostic rates, leading to early detection of the pathology in its natural course. Higher utilization of molecular analyses has led to a better understanding of the pathogenesis of various disease processes, making the development of targeted therapies and cutting-edge cancer treatments possible. Who would have thought of using PD-L1 inhibitors for treatment of various metastatic cancers a few decades ago? The use of innumerable biological response modifiers (like rituximab, eculizumab, tocilizumab) in treating various auto-immune diseases and in cancer therapy by targeting specific parts of the ever-so-complex immune system is a great mystery that has been unravelled over the past fifty years. Mortality and morbidity due to various infectious diseases are at an all-time low. Newer modalities of surgeries utilizing sophisticated robotic instrumentation and visualization techniques have made surgeries easier, faster, and less expensive, with a reduced duration of post-operative hospital stay. What has led to this miraculous shift in healthcare practice? How have we managed to convert what was previously imagined to be impossible to a day-to-day affair? The answer is simple: Medical research is the sole reason for this beautiful voyage of healthcare. The evolution of clinical research, since the world-famous “Treatise on Scurvy” by James Lind, which is considered the first well-documented, “scientific” clinical trial, is a fascinating long journey.

Although clinical research has improved in ways beyond our wildest imagination, it comes with significant issues and problems that the new-age physicians must tackle. The importance

of “useful clinical research” has become extremely relevant in the current context, and needs to be addressed promptly. Clinical research is considered valuable when it addresses a valid problem in the proper context and provides good quality, patient-centered, transparent information that is useful for daily practice. Let us try to explore the issues of this double-edged sword that we have to be aware of.

We are currently living in an era where information is readily accessible to everyone. There is a massive amount of medical information now available to every physician. There are millions of clinical research papers out there, including clinical trials, review articles, observational studies, case series, and, lastly, case reports, which are all just a click away. As the number of articles exponentially get added to this ocean of existing information, one of the main questions that a practicing physician in the present day and age must ask themselves while reviewing a research article is, “Is this information real, and is it going to be useful for day-to-day patient care?” Every scientifically proven hypothesis has a counterargument which is also scientifically proven. What do we do in such cases? How do we know which information is accurate? This is precisely the dilemma being faced by almost every practicing physician in every specialization. How do we provide optimal care for patients if there is contradicting evidence in abundance for every decision point in the medical literature?

The next big problem, after the sheer quantity of literature, is the quality of it. When we talk about good-quality research, we need to think of its clinical relevance. Is there enough clinically relevant information gained from a particular research paper? Does it add new information to what we already know? For the past few decades, there has been a phenomenal increase in pressure on both practicing physicians and trainees at different levels of their medical journey to produce more publications in the world of healthcare. Every physician is required to do research, in some form or the other, to either graduate from the medical school, complete the residency, or even to qualify for promotions later in their career. There is also tremendous pressure wherein a paper is judged based on whether a particular result is obtained or not, which in turn causes pressure to either obtain that result or interpret the data as if the desired result has been obtained. This has a negative impact on the quality of the paper. Twisting the language and tweaking the statistical analysis to achieve the desired result is as good as falsifying data. For example, when new interventions are being studied for a particular disease process, comparing them with placebos rather than comparing them to already existing interventions that have been proven to be useful, is not perfect. Ideally, studies should be deemed clinically useful regardless of their eventual results so that there is no pressure of obtaining a “desired” result.

I firmly believe that the answer to this seemingly complicated question of quantity versus quality is that, we, as physicians should evolve and develop an understanding of good quality research. We should be able to sift through the pile of articles and recognize a well-structured and “honest” research paper. We need to be able to understand the nuanced languages and the statistical jargon used in research papers. I am of the strong notion that instead of trying to

make a prolific researcher out of every single physician, training physicians should be taught the importance and ways of recognizing a good paper and understanding the research methodologies used in the paper. Physicians should learn to critically analyse the paper and

not just believe every word that is published. This critical thinking should start at an early stage. Teaching medical students and residents the art of critical paper analysis through journal clubs is an excellent way to promote healthy scepticism and improve critical learning skills.

Another important way to tackle the problem of quantity versus quality lies in the hands of medical journals. Journals have to be very influential in setting standards for good quality research. Journals must engage stringent policies for verification of information and responsibly publish only relevant information. In addition, regulatory agencies should also become more involved in researches and ensure that transparent and pragmatic research is conducted.

In conclusion, I strongly feel that in this fast-paced world where there is a downpour of publications happening every day, the quality of research has to be given utmost importance. As someone famous once said, “With great power comes great responsibility!” There has to be a balance between quantity and quality. It should be deemed futile to perform clinical research without ensuring good quality and clinical utility. Ultimately, researches are to be patient-centric and not to be done for the benefit of researchers, media, or the sponsors.

How to assess quality of medical research?



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The question is whether highly productive researchers have significantly higher probability to produce top cited papers or predominantly produce a sea of irrelevant papers? In simple terms, do we find a diminishing marginal result from productivity? Is quality is compromised for the sake of quantity?

The answer to these questions may help to answer the question of whether the increased competition and increased use of indicators for research evaluation and accountability matters.

The number of scientific papers published by an Author is acknowledged as an easy-to-understand research outcome. However, not only the quantity but also the quality of papers needs to be addressed. As we know, Impact factor (IF) is one of the well-established metric systems for assessment of quality. But it is not without flaws.

Proper assessment of research performance is important for recognizing progress, productivity and plays a major role in improving medical system.

When assessing the quality of medical publications, it is also necessary to account for their contribution to the development of treatment guidelines, by field specialists, with the latest evidence-based data on medical practices and procedures in the clinical setting. Medical treatment guidelines are important contributions to healthcare, and publications focusing them should be considered as high-quality, regardless of the journal's IF or citation index.

Clinical researchers tend not to publish negative studies with small sample sizes. This could cause publication bias. Since negative studies with small sample sizes may have a very high social significance, there is a need to appropriately incorporate the results of negative studies as well.

All the promotions and incentives align to “publish or perish” - this kind of pressure in academia to rapidly and continually publish academic work to sustain or further one’s career results in quantity over quality. Frequent publication is considered as one of the few methods to demonstrate academic talent.

A solution is to change the goal of medical researcher or clinician training from bolstering a CV to mastering scientific research methods. In addition, the criteria for scholarly authorship should be quality, not the number of publications. Done properly, the development of quality measures clearly linked to better outcomes can help improve health care performance and benefit patients. It is more important to do the hard work and truly define quality than simply to rely on easily available data regardless of whether they mean anything to patient care.

CALL FOR ARTICLES

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[Author instructions@page 98](#)

Before memory fades



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Introduction

For quite some time, the idea of narrating short anecdotes which are in my memory has been on my mind. A substantial part of my medical life has been bedside teaching of undergraduate and postgraduate students. Using the basic clinical methods, one does a lot of meaningful teaching. There is nothing that gives a teacher more joy than when his or her students excel, and remember the clinical 'pearls', decades after they have graduated. Of interest is the subtle difference between clinical intelligence and 'wisdom'. Intelligence gives us knowledge with specific utility. Wisdom, on the other hand, inspires flexible versatility and judgement. Medicine and its practice are no exceptions. We hear a lot of talk about the decline in the bedside examination and the burgeoning technologies which have made the students of recent decades tend to rely more on the results of various tests. Clinical

acumen is developed slowly and lasts forever and provides a healthy aptitude to develop

rapport with patients and their relatives. Needless to say, these have to be seen in the proper perspective. Technology and its progress are of course of great importance in all medical fields. Optimal use of diagnostic tools of any type, after a clinical formulation is made will be beneficial even as the young doctor improves his clinical acumen, for the rest of her or his medical life. I provide a few examples to highlight the points made.

Case one : Auscultation of chest.

Teaching undergraduate medical students is delightful. They are fresh from the morbid anatomy classes and their enthusiasm is palpably obvious. It is a habit with me to select a few 'cases' for demonstration, history taking and physical examination.

One bright morning, I entered the male ward and saw a young man who was looking fine. The nurse said he was recovering from gastroenteritis and was waiting for release. I took this chap into confidence and told him that some students would see him and all he had to do was to keep quiet. He nodded and smiled. With the help of a student nurse, I pasted a cotton-benzoin seal on his right lower chest wall. The students walked in and I wished them well and asked them to examine this man. 'No history taking please !' I firmly told them. Four of them examined the 'patient'; three said the breath sounds were diminished in the right lower zone. The fourth student was unhappy. He said, 'I am sorry Sir, I don't find any difference'. In fact, he was the only one who examined both sides. I went on to explain the importance of being honest in eliciting physical signs rather than swayed by 'false localising signs'!

Case 2. Tremors

It was a warm morning and we were busy in the medical outpatient department. Generally, I sit with an intern or a resident (DNB trainees). Though we see patients individually,

we can discuss any point and proceed. That morning, I was seeing a man with COPD. The junior resident with me had to see a young lady-35-year old, walked in and sat on the stool near him.

A glance at her showed that her left shoulder was drooping; some tragedy—had left her

left upper limb wasted and slender. Her symptoms suggested a fairly high degree of anxiety and weight loss. I dreaded the thought of her being asked to extend both her arms to look for tremors. I asked the resident to make an urgent call to the ICU about a patient. While he was away, I made sure that she had no tremors of her right-sided fingers. (She had poliomyelitis

during childhood). The thyroid was not palpably enlarged. I discussed about her anxiety and reassured her that we will do some blood tests. When the resident returned, we completed the consult by asking for blood tests to rule out thyrotoxicosis. After the OPD work was over, I told him about the reason for the interruption, and explained to him the need for being very alert so that we do not cause any embarrassment to our patients during clinical examinations.

The seeds of empathy are easier to sow in the young.

Case 3. Young hypertensive

The continuous stream of patients is tiring and one has to be very alert and cautious. One of my close colleagues called it the twelve-o'clock syndrome; after 12 Noon, take even trivial

symptoms seriously as you are more likely to err ! That morning continued and there were many cases. A 17- year - old girl came with her mother. The mother was anxious that the patient was not able to be attentive in classes and that occasionally had a mild headache. The girl said that she had occasional episodes of mild giddiness. My alarm bells rang. Her radial pulse was bounding and her blood pressure was 180/106 mm Hg. Lower limb pulses were absent. Coarctation of aorta was diagnosed and confirmed. Thanks to progress in cardiovascular diseases, at present, treatment can be done with balloon coarcto-plasty and stent placement. This was performed at a cardiovascular centre, and patient and she did well thereafter.

Case 4. Movement disorder

The peaceful medical OPD was rudely shaken by the entry of a 16- year- old girl accompanied by two relatives and two 'others', creating undue noise and demanding immediate attention. The mother stated that this started after her father reprimanded her for some trivial matter. The girl was having abnormal movements of head, arms and legs, the body, sudden twisting of the neck etc. After a dose of carbamazepine, she was feeling better. I thought she was going through a hysterical conversion; the other option was rheumatic chorea which causes choreoathetoid movements. My senior colleague thought it was chorea. Meanwhile, the resident who was examining her said " Sir, there is a cardiac murmur !" The score was now leaning towards rheumatic chorea ! But my examination showed that the murmur was due to an atrial septal defect – secundum-type. This was confirmed by echocardiography later. So, it proved to be a conversion reaction, after all ! We referred her to our psychiatrist colleague for advice. The cardiac problem was a secundum atrial septal defect, which could be treated with a prosthetic device closure at a Cardiology Centre.

Case 5. A woman who lost weight

You will recall that I said about delays in diagnosis. Often it is due to a co-morbid condition which interferes with arriving at a diagnosis. Mrs L, was a 70 - year - old woman whose family I knew for a long time. She was on treatment for paranoid schizophrenia and was on medications for many years. About a year earlier she started losing weight. By the time I saw her, she had lost 9 kg. Routine tests did not reveal anything abnormal. A chest X-ray, routine blood tests, studies of the bowel, upper GI endoscopy to rule out cancer---all were normal. After I reviewed these data, I did a complete examination. The only findings were a raised heart rate -96 to 100 beats per minute. An electrocardiogram showed frequent

supraventricular ectopic beats. Suddenly it struck me that she might have thyrotoxicosis

presenting atypically. The patient's daughter-in-law, asked about any change in her

daily life, volunteered the information that about six months earlier, Mrs L had complained that she found it tough to stand up after having meals and started having meals at the table.

The missing link was noted and she did have proximal myopathy on examination.

Diagnosis was confirmed with thyroid profile and she was placed on oral Carbimazole; she recovered fully. Thyroid excess in elderly subjects is masked. The obvious signs seen in younger subjects is rare in the elderly. At her next visit to her psychiatrist, he was puzzled about her gain in weight; he was pleased that the diagnosis was made.

Case 6. The ugly smile

Sometimes a diagnosis which is obvious to an elderly clinician may not be so for a young doctor. This is simply because, an illness might have become so rare that present students would not have seen it. My younger colleague at the hospital called me and asked me

to see a patient. We walked to the female ward and on the way, I was told that this 50-year-old woman was brought to the hospital the previous night from a village. She had fever,

vomiting and loose motions. Routine blood tests were normal except for a raised red cell sedimentation rate. She was started on intravenous fluids and referred for medical care.

We entered the ward; one glance at her and the diagnosis was literally written on her face. Her face was made ugly by 'risus sardonicus'—sardonic smile, due to spasm of the facial muscles. Her abdominal wall was rigid as a board. As we did not have facilities to manage tetanus, we had to transfer her to the isolation hospital. Notably, the surgical resident should really have had a suspicion of peritonitis given her abdomen—but as I said before, he also was too young to have seen the face of tetanus.

Case 7. Abdominal pain

This short tale is striking as well as instructive. We were in the medical OPD, and it was busy as usual. As I walked to my room, I noted a young lady and probably her mother

waiting for their turn. The mother's face was vaguely familiar but can you not a particular wave in the ocean? They were in the back row and if she wanted to see me, they had to

wait quite a bit. As usual, I was sharing my room with a lady intern who had finished her surgery posting and was now interning three months of medicine. A while later, the 18-year

old girl entered and her mother said her daughter had occasional abdominal pain and she wished that I should see her. As I was seeing another patient, I suggested that our intern see her and I would discuss with her. The intern saw the young lady and emerged from behind the curtain, appeared disturbed, and softly asked me if she could see me separately. We walked to the conference room which was not occupied. The intern told me she thought the girl was pregnant. Indeed, a troubling situation. But from my vantage position, through the doors of my room, I could see the mother and her daughter waiting for long patiently. We marched back to my room and I gently asked her mother to take her daughter to the toilet; the relief on the patient's face was writ large! I assured that I would wait for her and she would not miss her place in the queue. After she returned, I felt her lower abdomen which was soft as velvet. I allowed my intern to 'confirm' my finding or, not finding what she thought she had

found ! The girl's problem was episodic abdominal pain probably due to helminthinfestation. I complimented my intern for her discrete handling of the problem; she was pleased that there was an entirely innocent explanation.

Case 8. Smoker's folly

During my stay in Delhi, I met Dr R R, who was also from Bangalore; this was in 1965. He was a pathologist and we became close friends. We kept in touch off and on and were glad when he too shifted back to Bangalore, we were very glad. We shared many moments and his sense of humour kept us close. His only folly was that he was a chain smoker. At various times I tried to stop his disgusting habit, and warned him of the worst consequences. After his marriage, I took his wife's help but unfortunately Lady Nicotine had her firm grip on my friend. When he was 80 years old, he gave up smoking. I remember the day when he got his chest -X ray performed and waved his normal X-Ray at me. We heaved a sigh of relief, but destiny had other plans. A year ago, he had a disc prolapse and needed treatment. Thereafter, he continued to have loss of appetite and weight; suspecting the worst, I referred him to a senior physician. After a few days, I got the bad news that I had all along feared. Upper GI endoscopy revealed extensive inoperable adenocarcinoma of the stomach. I met him and the family did their best. He passed away after in two weeks of suffering at an oncology centre. The family was distraught and so was I. They say that when a close friend dies, a part of you too dies. For a fleeting moment, I felt it was true. I long for his carefree smile, and gentle and close friendship.

Case 9. An Unusual Cause of Headache

When having a mid-morning break from rounds, my colleague asked me to have a look at the 36 -year- old sister of one of our DNB residents. She was admitted for evaluation of unexplained weight loss and fatigue. Both are common and maybe caused by a large number of 'differential'. We proceeded to the ward she was admitted in and we had a look at her. They say one look is worth a thousand words; I wonder who said it first? He must have been a genius or an Osler like physician ! She was looking comfortable but had a severe form of kypho-scoliosis. Most of these are congenital and progress inexorably unless some measures are taken early in life. In recent times prevention of worsening is possible in many cases. The main defect is the twisted thorax does not allow normal breathing by the diaphragms and rib muscles. It leads into what type 2 respiratory failure, with both hypoxemia and elevated Carbon dioxide levels. The pulmonary arterial pressure is very high in most cases, because of persistent hypoxemia and scoliosis related torsion of pulmonary vessels. Our patient had early morning headaches which is ominous, as it

suggests high levels of Carbon-dioxide as the lungs have failed to function normally. Her blood gases showed PaO₂ 52 mm Hg, PCo₂ 65 mm Hg, pH of 7.30. Her lung

functions showed severe restriction of vital capacity. Diagnosis at an early age and intervention by placement of metallic prosthesis and spinal fusion, prosthetic metal rods placement early in life. Many satisfactory results result by early correction.

Management of these unfortunate persons is difficult when advanced. Correction of low oxygen should be done with caution as it might cause sudden increase in CO₂, resulting in acidosis. She was placed a non-invasive mask which supports the ventilation and aids the faltering respiratory muscles. Her doctor sister did whatever she could. A few months later we got news of her demise in the small town she came from.

Summing up, the physicians of our generation have had the good fortune of enjoying the nuances of bedside clinical learning and teaching at both undergraduate and postgraduate levels. The challenge of present and future teachers is to succeed in the areas of clinical approach and integrate the other diagnostic tools of a vast variety in a systematic manner.

Clinical acumen and use of diagnostic tests have to complement each other.

Conflict of interest : None

Reactive Hypoglycemia



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What is reactive hypoglycemia?

Reactive hypoglycemia(RH) is a condition associated with postprandial hypoglycemia that occurs after food intake (2-5 hours after meal). This phenomenon was first described by Harris in 1924 who reported five cases of hypoglycemia following a meal; he later called it reactive hypoglycemia.

Reactive hypoglycemia is characterised by exaggerated insulin release and insulin resistance and sometime could be part of pre-diabetic state

Normal Physiology- protection against hypoglycemia :

Hypoglycemia is a relatively uncommon phenomenon thanks to our body's protective mechanism. Our body has different mechanisms preventing hypoglycemia at various levels , which are as follows:

- a) **Insulin** :A decrease in insulin release is one of the foremost defenses against hypoglycemia. This action is predominantly seen in plasma glucose values of **<80 mg/dL** (<4.4 mmol/L).
- b) **Glucagon and epinephrine** :Thesecretion of counter regulatory hormones such as glucagon rises when plasma glucose concentrations falls below **65-70mg/dL** (3.6 to 3.9mmol/L). Glucagon increases glucose output by the liver via glycogenolysis and

gluconeogenesis, thus providing adequate glucose to the brain. Epinephrine also stimulates lipolysis and skeletal muscle glycogenolysis, providing substrates (alanine, lactate, and glycerol) for gluconeogenesis in the liver.

Sympathetic nervous system is also activated at these levels increasing the levels of epinephrine thus promoting glycogenolysis and gluconeogenesis

c) **Growth hormone** :Growth hormonesecretion increases when plasma glucose concentrations falls below **60-65mg/dL** (3.3 to 3.6mmol/L)

d)**Cortisol** :Cortisol secretion increases when plasma glucose concentrations falls below **60mg/dL** (3.3mmol/L)

Symptoms of Hypoglycemia

Symptoms of hypoglycemia are mainly divided into autonomic symptoms and neuroglycopenic symptoms. However in patients who experience recurrent hypoglycemia, these symptoms may be absent thus leading to sudden loss of consciousness and seizure.

A. Autonomic symptoms : Autonomic symptoms could be either adrenergic or cholinergic in nature

- Adrenergic Symptoms :Tachycardia, tachypnea, tremor, anxiety
- Cholinergic Symptoms :Diaphoresis, hunger, paresthesia

B. Neuroglycopenic symptoms : These symptoms are seen due lack of fuel supply to the brain which predominantly depends on glucose for energy.The neuroglycopenic

symptoms seen are behavioural changes, fatigue,lethargy , seizures and loss of consciousness is seen at very low levels of plasma glucose. If not managed in the right time can lead to death.

Types of hypoglycemia

Hypoglycemia is mainly divided into 2 types; those with diabetes and those without background history of diabetes.

A) Hypoglycemia in patients with Diabetes

i. **Severe Hypoglycemia**: Hypoglycemia that requires assistance from another person.

ii. **Documented symptomatic Hypoglycemia**: Symptoms of hypoglycemia that are accompanied by measure plasma glucose of $\leq 70\text{mg/dl}$ (3.9mmol/l)

iii. **Probable Symptomatic Hypoglycemia**: Symptoms are typical of hypoglycemia however not confirmed by plasma glucose values.

iv. **Asymptomatic Hypoglycemia** (unawareness) :Hypoglycemia without any self-reported symptoms of hypoglycemia

v. **Relative Hypoglycemia**: patients with poorly controlled diabetes experience symptoms of hypoglycemia at plasma glucose levels $> 70\text{mg/dl}$ (3.9mmol/l) when there is trend towards decrease in plasma glucose levels.

B) Hypoglycemia in patients without Diabetes

i. **Fasting** :Hypoglycemia occurring during fasting state or post-absorptive phase. Insulinoma is known to cause fasting hypoglycemia.

ii. **Post- prandial** :Hypoglycemia typically occurring after meals. Example : reactive hypoglycemia or dumping syndrome.

Types of Reactive hypoglycemia(RH)

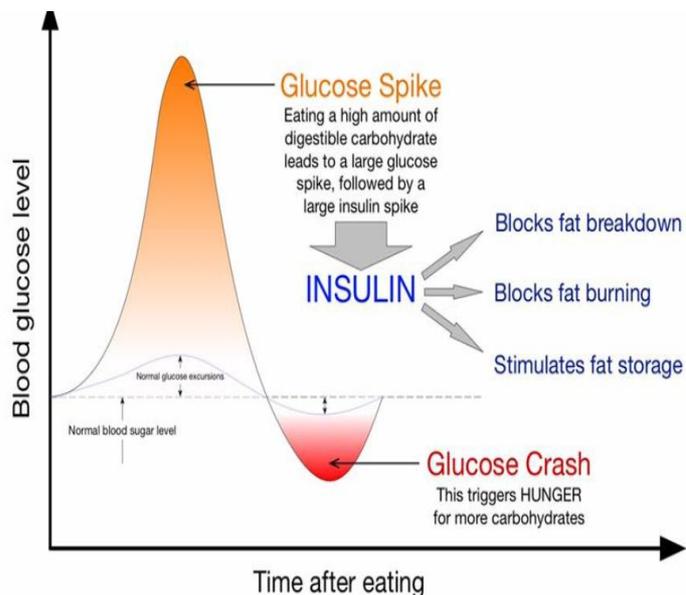
Reactive hypoglycemia is further subdivided based on the time duration between meal and symptoms as follows:

- Idiopathic RH (at 180 min) – most common
- Alimentary (within 120 min)- exaggerated incretin effect
- Late RH (at 240–300 min)

Mechanism of RH

Reactive hypoglycemia is characterised by absence or reduced 1st phase insulin response. This leads to excessive glycemic surge in the initial postprandial phase, which in turn leads to an exaggerated 2nd phase response. This exaggerated insulin release leads to hypoglycemia typically within the 2nd to 4th hour of a meal.

Elevated insulin levels in these patients leads to down regulation of insulin receptors and its post receptor signalling. It is thus associated with a decrease in insulin sensitivity.



its post receptor signalling. It is thus associated with a decrease in insulin sensitivity.

Whom to evaluate ?

Guidelines recommend evaluation of patients who demonstrate Whipple's Triad. Thus patients who don't have symptoms of hypoglycemia when asymptotically detected to have low plasma glucose levels ($\leq 70\text{mg/dl}$) or patients who do not demonstrate hypoglycemia (plasma glucose $> 70\text{mg/dl}$) during symptoms- do not require further evaluation.

Whipple's Triad first described by Allen Whipple is as follows:

1. Signs and Symptoms of hypoglycemia
2. Low plasma glucose during the episode
3. Resolution of symptoms or signs after plasma glucose is corrected

Note: 10-30% of normal individuals have plasma glucose $< 50\text{mg/d}$ at some point of time; without symptoms

Approach to reactive hypoglycemia

Patients with hypoglycemia are classically described as those having fasting hypoglycemia or post-prandial hypoglycemia. However, there is a considerable overlap in symptoms. Patients with insulinoma who classically present with fasting hypoglycemia, may present with postprandial symptoms. Similarly, patients with reactive hypoglycemia may present with fasting symptoms. Hence this classification has taken a back seat.

A) Fasting (post absorptive) vs Postprandial Hypoglycemia

1. Fasting- insulinoma
2. Postprandial – reactive, post gastric bypass

Due to the drawbacks in the older classification, patients have now been classified into patients who are seemingly well and sick patients. The classification is as follows:

B) Hypoglycemia in Seemingly well vs Sick patient

1. Seemingly well

- a. Accidental, malicious, surreptitious - due to consumption of sulfonylureas or other drugs
- b. Hyperinsulinism - autoimmune hypoglycemia, Insulinoma, Reactive hypoglycemia
- c. Post gastric bypass

Sick patients

- a. Critically ill patients- hepatic , renal or cardiac failure
- b. Sepsis- including malaria
- c. Drug induced hypoglycemia
- d. Non islet cell tumors - Due to overproduction of IGF2 by these tumors
- e. Hormone deficiency- Cortisol or glucagon deficiency

In a seemingly well patient underlying hyperinsulinism is the most common etiology for hypoglycemia. It could be due to consumption of sulfonylureas either accidental or malicious in nature. Islet cell tumors producing insulin could be due to a focal lesion (Insulinoma) or a diffuse process due to pancreatic hyperplasia (Nesidioblastosis). Patients may have symptoms of hypoglycemia post gastric bypass (Roux-en Y surgery done for obesity) due to exaggerated GLP 1 response to sudden carbohydrate load into the intestine . Patients can also present with auto-immune hypoglycemia which can be either due to auto-antibody to insulin or auto-antibody to insulin receptor. In the former, the auto-antibody binds to insulin released in the post meal phase and suddenly releases this bound insulin in an unpredictable manner, causing hypoglycemia. In the latter, the auto-antibody binds to insulin receptors stimulating it, thus causing hypoglycemia. Auto-antibody mediated hypoglycemia is also called Hirata's disease, and it is more common in Japanese and Korean ethnicity.

In critically ill patients , the normal mechanism preventing hypoglycemia becomes defective thus leading to hypoglycemia. Non islet cell tumors can be seen in mesenchymal tumors, Hepatocellular carcinoma , Adreno-cortical carcinoma (ACC) or lymphomas which overproduce big IGF2 into the circulatory system which stimulates the insulin receptor causing hypoglycemia. Hypocortisolemia due to sickness or pituitary defects can also lead to hypoglycemia.

Some patients may rarely present with hypoglycemia due to mutation in insulin receptors & exercise induced hyperinsulinemia syndromes.

Drugs causing hypoglycemia

- A. Moderate quality of evidence
 - Fluoroquinolone - eg: Gatifloxacin
 - Pentamidine
 - Quinine
 - Indomethacin
 - Glucagon
- B. Low quality of evidence
 - Chloroquine
 - Artesunate/artemisinin/artemether
 - IGF-1
 - Lithium
 - Propoxyphene/dextropropoxyphene
- C. Very Rare (>25 cases identified)
 - ACE inhibitors
 - ARBs
 - Mifepristone
 - Heparin
 - Trimethoprim- sulfamethoxazole
 - 6 Mercaptopurine
 - Disopyramide
 - SS adrenergic receptor antagonists

Diagnosis of reactive hypoglycemia (RH)

- Confirming hypoglycemia – repeat the circumstances
 - **Mixed meal challenge test**
 - **75 gm extended OGTT (oral glucose tolerance test)**
- 72 hour fast – if there is suspicion of insulinoma
- HbA₁C
- Baseline Serum cortisol(8am)- to rule out hypoglycemia
- Establishing other causes- liver failure, renal failure, sepsis, autoimmune disease, neoplasm , alcohol drugs

Mixed Meal challenge test

Mixed meal challenge test and 75gm extended OGTT are commonly prescribed tests for reactive hypoglycemia. However, guidelines prefer mixed meal challenge test over 75gm OGTT. These tests demonstrate rapid glycemic excursion after carbohydrate challenge followed by hypoglycemia due to elevated insulin levels. The salient features of the test is as follows:

- Ideal for diagnosis of postprandial hypoglycemia
- Formula mixed meal is used
- Samples are collected at baseline and then hourly for 5 hours
- Serum insulin, C-Peptide, RBS samples are collected during the test

	Insulin	C-peptide	Proinsulin	Sulfonylurea screen	Insulin Antibody	B Hydroxy - butyrate
Insulinoma	↑	↑	↑	---	---	↓
Exogenous Insulin	↑	↓	↓	---	---	↓
Sulfonyl-urea	↑	↑	↑	+	---	↓
Non- islet cell tumors	↓	↓	↓	---	---	↑
Auto immune	↑	↑/ ↓	↑/ ↓	---	+	↓
Normal	↓	↓	↓	--	--	↑

Management

- Diet
- Drugs

Management of reactive hypoglycemia mainly involves diet modification. Subjects are advised to have a low carbohydrate diet , to include more complex carbohydrates in the meal and to avoid simple sugars . In patients who don't respond to dietary modifications medications have been tried.

Dietary modifications:

- Avoid simple sugars, avoid beverages with sugar and alcohol
- Complex carbohydrate diet preferred
- Diet plan based on biochemical pattern of hypoglycemia
- Smaller and regular food intake of low glycemic index (GI) food
- Prefer food with lower glycemic load

Drugs used in Reactive hypoglycemia :

Most of the drugs used in management of reactive hypoglycemia(RH) are also used in patients with diabetes. The drugs for RH used are as follows :

1. Alpha glucosidase inhibitor – Acarbose, voglibose, miglitol

These drugs reduce the glycemic excursion, thus reducing the amplitude of 2nd phase insulin release and thus reducing the chances of postprandial hyperglycemia . They also reduce the levels of GIP(gastric inhibitory peptide) which is released from K cells of duodenum.

2.Thiazolidinediones (TZD) - Pioglitazone

Low dose Pioglitazone (15mg once daily) has been shown to reduce the number of episodes of reactive hypoglycemia and prevent diabetes in patients with impaired glucose tolerance. They work by improving insulin sensitivity and thus reducing insulin levels.

3. Incretins : Vildagliptin, Sitagliptin, GLP 1 analogues

DPP IV inhibitors reduce the postprandial glucose excursions by 32% without evidence of weight gain or hypoglycemia. This effect is used to treat reactive hypoglycemia. They have also been seen to reduce glucagon secretion, thereby reducing hyperglycemia. Both Sitagliptin and Vildagliptin have been tried. Similarly GLP1 analogues have been tried in overweight pre-diabetic subjects with later RH ; benefits of therapy seen in more than 50% of the patients.

4 Metformin : Metformin works by improving insulin sensitivity thus reducing insulin levels. However, the results are not consistent.

5. Other drug: Octreotide has been particularly useful in patients with post gastric bypass surgery who don't respond to other forms of treatment. Diazoxide (potassium channel opener) reduces insulin release from pancreas, thus reducing the risk of hypoglycemia. Diazoxide has been tried in patients who did not respond to dietary modifications or other drugs.

Summary :

Reactive hypoglycemia is not an uncommon disorder, where subjects most often present with postprandial hypoglycemic symptoms. Seen more commonly in obese , pre-diabetic individuals with family history of diabetes. Sometimes it has also been seen in normal individuals with no family background of diabetes or prediabetes. After considering other differential diagnosis, patients can be subjected to either extended OGTT or mixed meal challenge test to confirm the diagnosis. Management is mainly dietary modifications and drugs if the response to diet is not adequate.

ABC of Medical Certificate



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Medical certificate is a legal document issued by registered medical practitioner. Very often doctors are approached to issue medical certificate. Registered medical practitioners are bound by law to give, or may from time to time be called upon or requested to give certificates, notification, reports and other documents by them in their professional capacity for subsequent use in the courts or for administrative purposes.

The issuing of medical certificate by any registered medical practitioner is governed by “Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002” , published in Part – III, Section (4) of the Gazette of India on the 6th April, 2002, and amended vide MCI notifications dated 22/02/2003, 26/05/2004 & 14.12.2009.

Some commonly issued medical certificates are:

- 1) Physical Fitness certificate of the candidate before joining School / College / various employment including the military services/ Driving license etc.

- 2) Treatment certificate, both domiciliary or institutional treatment for various illness. Main purpose is availing medical / sick leave from school/ employment.
- 3) Fitness certificate after successful treatment of various illness (both domiciliary or institutional). Purpose is rejoining the school/ employment after sick / medical leave.
- 4) Wound certificate for medicolegal purpose.
- 5) Disability certificate for compensation under the Workmen's Compensation Act and Persons with Disability Act.
- 6) Certificate of illness / disability – may be temporary or permanent –for excusing attendance in courts of Justice, in public services, in public offices or in ordinary employment.
- 7) Certificate in connection with sick benefit from insurance and societies.
- 8) Certificate of mental illness / disability, under the Acts relating to Lunacy and Mental Deficiency and under the Mental illness Act.
- 9) Certificate of illness under the Employee's State Insurance Act.
- 10) Certificate for procuring / issuing of passports.
- 11) Certification in connection with matters under the control of Department of Pensions.
- 12) Certification For procuring driving licence.

It is the right and duty of every registered medical practitioner, under professional capacity to issue appropriate certification after careful examination of the candidate.

Contents of any Medical certificate in general

Letter head including Name / Complete qualification/ Registration number/ address of practice of the registered medical practitioner.

Title of the Certificate (Treatment / fitness/ disability..)

Name / age/ gender / address of the person (to be verified by Valid ID proof)

Signature / thumb impression of the person/ patient shall be obtained on the certificate, in the presence of registered medical practitioner, while issuing the certificate.

Unique Identification marks of the person like birth marks / mole etc (at least 2) has to be recorded. Currently UHID / Aadhaar number / passport number may be recorded as proof of identity.

Body of the certification including the health condition/ name of the illness / expected days to recovery/ extent of rest etc

One has to mention the purpose of the issuing certificate.(to be produced at...), otherwise the certificate may be misused by various means.

The certificate is complete and authentic only if Signature is postfixed with Name, Complete qualification, Registration number, address of the registered medical practitioner with date, place and time of issue along with official seal.

It is mandatory to preserve a duplicate Copy / carbon copy of any such documents for at least 3 years in NON-MLC condition & for 7 years in MLC condition.

There may be specific formats of medical certificates for various purpose, viz, for issuance of driving license/ Armed force service / Banking service etc

Many of the Certificates may have to be issued by the empaneled doctor for the specific purpose

The following is the prototype Medical Certificate notified as Annexure 2 under Code of Medical ethics regulations 2002.

APPENDIX - 2

1. FORM OF CERTIFICATE RECOMMENDED FOR LEAVE OR EXTENSION OR COMMUNICATION OF LEAVE AND FOR FITNESS

Signature of patient
or thumb impression _____

To be filled in by the applicant in the presence of the Government Medical Attendant, or Medical Practitioner.

Identification marks:-

1. _____

2. _____

I, Dr. _____ after careful examination of the case certify hereby that _____ whose signature is given above is suffering from _____ and I consider that a period of absence from duty of _____ with effect from _____ is absolutely necessary for the restoration of his health.

I, Dr. _____ after careful examination of the case certify hereby that _____ on restoration of health is now fit to join service.

Place _____

Date _____

Signature of Medical attendant.

Registration No. _____

(Medical Council of India / State Medical Council of State)

Note:- The nature and probable duration of the illness should also be specified. This certificate must be accompanied by a brief resume of the case giving the nature of the illness, its symptoms, causes and duration.

A registered medical practitioner shall not issue certificates of efficiency in modern medicine to unqualified or non-medical person.

A registered medical practitioner shall not issue any certificate, unless he/ she has attended the candidate/ patient.

e-medical certification after Telemedicine:

There are no definitive guidelines on issuing of e-medical certification in the current era of Telemedicine / Tele consultation.

As it is mentioned under clause 1.3.2. of regulations governing telemedicine, supplemented in annexure 5 of MCI Code of medical ethics regulation 2002, the registered medical practitioner is bound by the same professional and ethical norms and standards as applicable to traditional in-person care, It is assumed that Registered medical practitioner, may issue the e- certificate for short illness / leave/ fitness etc.

However Registered medical practitioner **shall not issue** e-medical certificate for the conditions requiring in-person examination or institutional treatment or any such illness requiring use of prohibited drugs (Schedule X of drugs/ Narcotics/ Psychotropics ..) listed under telemedicine.

Penalty for issuing false certification: *Any registered practitioner who is shown to have signed or given under his name and authority any such certificate, notification, report or document of a similar character which is untrue, misleading or improper, is **liable to have his name deleted from the Register.** (7.10 of Code of medical ethics regulation)*

Summary:

- Medical certificate is a legal document issued by registered medical practitioner
- It is the right and duty of every Doctor, under professional capacity to issue appropriate certification.

- There are several types of **CERTIFICATES, REPORTS, NOTIFICATIONS etc.** issued by registered medical practitioners for the purpose of **VARIOUS ACTS / ADMINISTRATIVE REQUIREMENTS.**
- Preserve a duplicate Copy / carbon copy for at least 3 years in case of NON MLC condition & for 7 years in case of MLC condition.
- E-Medical certificate may be issued for minor illness / short period.
- Registered medical practitioners shall not issue the certificate without examining the person.
- Issuing false medical certificate is punishable under act, to the extent of *deletion of the name from the Register of Medical Council.*

Ref:

Code of medical ethics regulation 2002 / No.MCI-211(2)2002/Registration. **Published in Part III, Section 4 of the Gazette of India, dated 6th April,2002,** and amended vide MCI notifications dated 22/02/2003, 26/05/2004 & 14.12.2009.

A Wasteful Problem



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With what seems to be an ever-increasing rise in the COVID-19 cases in India, the current pandemic has given rise to an umpteen number of problems, in the Healthcare sector and beyond. India currently accounts for ~30 million cases of COVID-19 since the beginning, although the number of new cases seem to fluctuate over time.(1) This pandemic however has made our environment suffer more than ever. You would have read articles that state that we have lesser forms of air pollution and what not but through this article, I stand to show how we have actually increased the overall pollution we humans create on Earth.

As a precautionary measure, every person is advised to wear two masks and a pair of gloves. This is said to prevent disease transmission of the virus in public. The utilization of single-use / disposable masks by the public has now become a health hazard.

Hospitals are trained and well equipped to dispose of medical waste. The kind of waste ranging from bodily fluids, gloves, tubes, masks, needles, etc. are all thoroughly segregated to either be retreated or disposed off in the appropriate method of disposal for the particular

category of waste. Face masks along with a few others happen to be one of the few items that are treated by incineration (burning) or plasma pyrolysis or even deep burial. A face mask consists of multiple layers of material that together act as a filter and usually a metal strip at the top and a rubber strip at the nose pad acting like a nose piece. If this face mask were to be disposed off in the common municipal waste collection system, it would be very difficult to segregate the waste due to its multiple components in the face mask. Moreover, generally, the face masks can themselves act as a contaminant due to the close contact to the nose and mouth and they may very well be a dump yard of diseases. If not disposed off wisely, these masks may spread more diseases than they are designed to prevent. This moves to show that disposing off the face masks in the municipal waste system itself has multiple consequences and combining that with the inadequate clearance of masks from streets and public areas has caused a lot of problems to nature.

Small animals tend to get caught in the elastics of the masks, animals tend to eat these masks and the metal shreds their inners. These are the smallest of the problems we cause to the animal problems. Proof of non-considerate disposal of masks was given to us a couple of months back when the cyclone Tauktae hit the West coast of Indian. Fort Kochi was rampaged with the waste from the ocean water. The cyclone gave back to the place what the human race had given it for a while. Although this is a general occurrence with regard to a cyclone event, the waste that was brought ashore was three times the usual amount.(2) A major part of that waste returned was latex gloves and disposable masks. This goes to show that we have a large risk of riverine and marine pollution. If waste is not disposed off properly and is discarded in a bad way, as shown above, then the waste is only going to cause more problems than it is intended to fix.

As opposed to the current norm of functioning of hospital staff, people weren't always bound to wear a mask all the time. More importantly, masks weren't changed unless a patient was visited. Now the norm dictates everyone to be wearing one/two masks at the very least. This mask needs to be changed after every contact with a person. Medical professionals are also suggested to wear goggles, hairnets, gloves, hazmat suits, shoe covers and even face shields

based on the situation. The amount of combined waste generated is catastrophic. This number is way higher than the amount that was present until COVID-19 came along. Even still, hospitals are well equipped to deal with this sort of waste but the common crowd is not. Everyone is wearing the protective equipment that was earlier a hospital only provision. This is now increased the waste generated even more.

The level of land pollution due to non-degradable waste has gone up significantly over the past year. With that being said, the quality of air has significantly improved since the COVID-19 mandated lockdown situation, mostly because of the lack of people moving around in vehicles which are one of the largest air polluters. The same goes for noise pollution. Vehicle emission-based air pollution and noise pollution from vehicles and large gatherings are reduced drastically and thus a “cleaner” Earth is coming along. But as I mentioned earlier, the benefits are severely out-weighed by the problems of tangible pollution.

Though the COVID-19 pandemic is reported to have reduced air pollution and environmental-related noise and improved biodiversity and tourist sites, however, the impact of stay-at-home and preventive measures on waste management is alarming. Due to the hoarding of gloves, gowns, masks and other protective clothing and equipment, there appears to be a waste emergency due to the unusual production of waste from both household and health facilities. The impending rampant dumping, open burning and incineration could affect air quality and health outcomes due to the exposure to toxins.(3)

When not managed soundly, the infected hospital waste could be subjected to dumping, leading to the public health risks, and to open burning or uncontrolled incineration, leading to the release of uncontrolled toxins to the environment and to secondary transmission of diseases to humans.

The onset of the COVID-19 pandemic led to the institution of distancing measures that triggered panic buying of food, toilet papers, face masks, gloves, cleaning products and 70% alcohol-based hand sanitizers (4) During this period, shopping of basic protective equipment, products and groceries grew by over 20% in one Supermarket alone (5). This panic buying

increased the disposal of perishable products and leftovers, which ultimately generated tonnes of waste.

Millions of discarded single-use plastics (masks, gloves, aprons, and bottles of sanitizers) have been added to the terrestrial environment and could cause a surge in plastics washing up the ocean coastlines and littering the seabed. (6) It is estimated that approximately 3.4 billion single-use facemasks/face shields are discarded daily as a result of COVID-19 pandemic, globally. A comprehensive data analysis by Benson et al, indicated that COVID-19 will reverse the momentum of years-long global battle to reduce plastic waste pollution. (6) Medical waste is unintentionally being mixed with the normal waste due to ineffective waste collection and segregation system in the public.

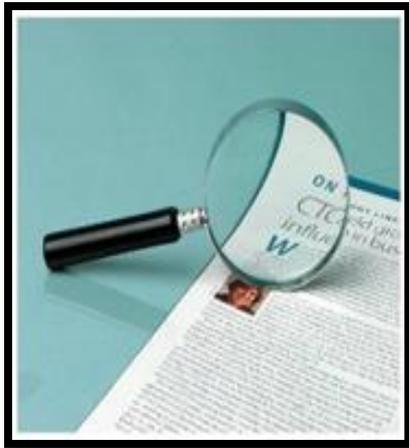
Keeping all this in mind, it is evident that the amount of physical waste being generated is severely large. Thus questioning the benefits the lockdown has to provide.

There is also the digital waste being generated. The people have taken to the internet to pass their time and platforms like Tic-Tok, Instagram reels and other social media platforms have made it very easy for anyone to upload anything at their will. Fake news, hate articles, biased opinions, mended/modified articles and news etc are all going rampage on the internet. This causes the biggest problem of them all, people are having their brain polluted based on the internet and because COVID-19 has given everyone the time and means to “live” on the internet, this is catching on.

To final it all off, it is safe to say that the COVID-19 lockdown may have served us well in terms of the COVID-19 pandemic but the amount of waste generated – digital and physical, is not doing any good for our environment. I would say there is an alternative, less harmful way but as of the time of writing this article, there isn't. So let's hope this COVID-19 situation settles down as soon as possible and we can stop burdening our Earth with the sins of our crimes.

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JOURNAL SCAN

Section Editors

Dr Chakrapani M

Dr B.Sadananda Naik

Summaries of important published articles

Management of Blood Pressure in Patients with Chronic Kidney Disease Not Receiving Dialysis

Tomson CRV et al Management of Blood Pressure in Patients with Chronic Kidney Disease Not Receiving Dialysis: Synopsis of the 2021 KDIGO Clinical Practice Guideline. *Ann Intern Med.* 2021 Jun 22. doi: 10.7326/M21-0834

The guidelines are interesting as they focus on recommendations for standardized BP measurement and a target systolic BP of less than 120 mm Hg, because these recommendations differ from some other guidelines.

Meta-Analysis clarifies benefits and risks of SGLT-2 inhibitors

Palmer SC et al Sodium-glucose cotransporter protein-2 (SGLT-2) inhibitors and glucagon-like peptide-1 (GLP-1) receptor agonists for type 2 diabetes: systematic review and network meta-analysis of randomised controlled trials. *BMJ.* 2021 Jan 13;372:m4573. doi: 10.1136/bmj.m4573.

SGLT-2 inhibitors were more effective for lowering all-cause mortality and heart failure hospitalizations.

Impaired local intrinsic immunity to SARS-CoV-2 infection in severe COVID-19

Carly G.K. Ziegler et al Impaired local intrinsic immunity to SARS-CoV-2 infection in severe COVID-19,

Cell (2021) 184: 18, 4713-4733.e22, doi.org/10.1016/j.cell.2021.07.023.

SARS-CoV-2 infection can cause severe respiratory COVID-19. However, many individuals present with isolated upper respiratory symptoms, suggesting potential to constrain viral pathology to the nasopharynx. Which cells SARS-CoV-2 primarily targets and how infection influences the respiratory epithelium remains incompletely understood. Authors performed scRNA-seq on nasopharyngeal swabs from 58 healthy and COVID-19 participants. During COVID-19, it was observed for expansion of secretory, loss of ciliated, and epithelial cell repopulation via deuterosomal cell expansion. In mild and moderate COVID-19, epithelial cells express anti-viral/interferon-responsive genes, while cells in severe COVID-19 have muted anti-viral responses despite equivalent viral loads. SARS-CoV-2 RNA+ host-target cells are highly heterogenous, including developing ciliated, interferon-responsive ciliated, AZGP1high goblet, and KRT13+ “hillock”-like cells, and they identified genes associated with susceptibility, resistance, or infection response. The study defined protective and detrimental responses to SARS-CoV-2, the direct viral targets of infection, and suggested that failed nasal epithelial anti-viral immunity may underlie and precede severe COVID-19.

Therapeutic Anticoagulation with Heparin in Noncritically Ill Patients with Covid-19

Therapeutic Anticoagulation with Heparin in Noncritically Ill Patients with Covid-19 [The ATTACC, ACTIV-4a, and REMAP-CAP Investigators[NEJM, Aug 26, 2021]]

COVID 19 infection is a risk factor for thrombosis. Heparin has antithrombotic, antiinflammatory, and antiviral properties Clinicians use d- dimer levels to start heparin in patients hospitalized with Covid-19 even in the absence of thrombosis. Some clinicians use prophylactic dose and some use therapeutic dose. The basic assumption is that the risk for bleeding is more when therapeutic doses are used.

This open-label, randomized, multiplatform [3 trials combined together] trial assessed whether hospitalized moderately ill Covid 19 patients would benefit from either therapeutic-dose anticoagulation or usual-care pharmacologic thromboprophylaxis. Moderate disease severity was defined as hospitalization for Covid-19 without the need for ICU-level care. ICU-level care was defined as the use of respiratory or cardiovascular organ support (oxygen delivered by high-flow nasal cannula, noninvasive or invasive mechanical ventilation, or the use of vasopressors or inotropes) in an ICU . Patients were further

stratified according to their baseline d-dimer level into 3 groups : a high d-dimer level (≥ 2 times the upper limit), a low d-dimer level and unknown d dimer level.

The primary outcome was organ support free days, evaluated on an ordinal scale that combined in-hospital death and the number of days free of organ support up to day 21

Majority of the study population belonged to USA and Brazil and ATTACC platform. .Of the 1048 patients in the usual-care thromboprophylaxis group, 801 (76.4%) survived until hospital discharge without receipt of organ support during the first 21 days, as compared with 939 of 1171 patients (80.2%) in the therapeutic-dose anticoagulation group. Among the study population, the probability that therapeutic-dose anticoagulation increased organ support–free days as compared with usual-care thromboprophylaxis was 98.6% (adjusted odds

ratio, 1.27; 95% credible interval, 1.03 to 1.58). The median adjusted absolute difference in this value was 4.0 percentage points (95% credible interval, 0.5 to 7.2), favoring the anticoagulation group. Major bleeding occurred in 22 of 1180 patients (1.9%) in the therapeutic-dose anticoagulation group and in 9 of 1047 (0.9%) in the usual-care thromboprophylaxis group. A major thrombotic event or in-hospital death occurred in 94 of 1180 patients (8.0%) in the therapeutic-dose anticoagulation group and in 104 of 1046 patients (9.9%) in the other group.They also noted that therapeutic-dose anticoagulation was beneficial regardless of the patient’s baseline d-dimer.

Based on this data we can use therapeutic doses of heparin in patients with hospitalized moderate covid patients who are not on HFNC /NIV with a slight increase in the risk of bleeding. Further trials on asian population might be needed before we generalize the results. This trial shows the role of collaborative effort during the pandemic times in generation of quality data during a limited time frame.

In the same issue another article discusses the role of prophylactic / therapeutic dose of heparin in critically ill patients. The authors conclude that in patients with severe Covid-19, therapeutic anticoagulation was not superior when compared to standard thromboprophylaxis.

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JOURNAL PUBLICATIONS OF OUR MEMBERS FOR THIS QUARTER

Dr Vishak Acharya et al

1. Perspective COVID-19 Pandemic: Need of the Hour – A Course Correction, Restructuring & Review of our Policies – An Indian Perspective

K. Vishak Acharya, Bhaskaran Unnikrishnan, Priya Rathi, A. Shreenivasa.* Journal of Epidemiology and Global Health Vol. 11(2); June (2021), pp. 150–154. DOI: [https://doi.org/10.2991/jegh.k.201215.00111\(2\) 150–154](https://doi.org/10.2991/jegh.k.201215.00111(2) 150–154).

The world stunned by a pandemic of such cataclysmic scale is reeling under the joint burden of health impact unleashed by the diseases and the strain on the economy. Glaring shortfalls and inconsistencies in strategies to combat the pandemic have surfaced worldwide irrespective of the country's economic and health care status. The responses have vacillated from mute to drastic. Gaps in health preparedness coupled with administrative tardiness, lack of co-ordination and foresight has heightened the impact of pandemic. Coordinated holistic approach with structured policies in place is the need of the hour. Surveillance and epidemiological models to predict the unpredictable and preempt the backlash will dictate our future successes and failures in this protracted fight against the pandemic. This article attempts to review the present status of health policy on COVID in general and with specific reference to India and their outcome thus far. We also propose a simple and practical framework on which a decisive, well-knit, reliable and acceptable policy can be framed.

2. A rare bug and recurrent bleed- A case report.

Sarda Y, Acharya VK, Sharma D, Chaithra GV, Kamath MM, Rai SP. J Global Infect Dis 2021; 13:97-9. DOI: [10.4103/jgid.jgid_137_20](https://doi.org/10.4103/jgid.jgid_137_20).

Isolated pulmonary actinomycosis is a rare entity. Its clinical features and radiological findings are nonspecific, making early diagnosis difficult for clinicians. We report a case of 40-year-old nonsmoker, immunocompetent male without an underlying structural lung disease who presented to us with recurrent hemoptysis and was diagnosed to have Actinomycosis after multiple readmissions. pulmonary actinomycosis can be a difficult condition to diagnose. Diagnosis of actinomycosis hinges on clinico-histopathological correlation and response to a specific treatment. Pulmonary actinomycosis should be considered in patients with recurrent hemoptysis of obscure etiology when routine workup for infections, inflammatory, and neoplastic etiologies are inconclusive. Microbiological isolation and identification of actinomycosis from sputum or bronchial lavage sample are difficult and rare.

3. Gene Sequencing Surveillance and the Vaccines- The Present Disconnect.

Vishak Acharya, Unnikrishnan ,ShrikalaBaliga, Santosh RaiJournal of The Association of Physicians of India ■ Vol. 69 ■ August 2021. 99.

A glaring lacunae emerging is the complete lack of substantial and reliable data on the viral strains presently wreaking havoc. Present work going on gene sequencing is too patchy in number and in clusters too be really representative of India's population diversity. The work too is mired in generalities and is not easily accessible in scientific circles. Caught in the direness of this pandemic, India is presently faring poorly in tracing the footprints of the virus in our midst in comparison to other countries globally which have now a structured strategy in place backed by studies on vaccine efficacy outcomes in backdrop of threat of emerging mutant strains. The need of the hour is to have a national surveillance cell to undertake gene sequencing by constituting inputs from epidemiological, microbiological and hospital units. The output from the surve should be available real-time for timely interventions and implementations including the need to look at the efficacy of our vaccination programmes. The surveillance is likely to be crucial in reviewing the vaccine strategy with more focused and decisive endpoints.

4. Sudden unexplained deaths and COVID-19: is there more than what meets the eye?

Vishak Acharya, Arun Shirali, Unnikrishnan B. J R Coll Physicians Edinb 2021; 51: 310–7.

Although direct causal association of sudden cardiac deaths (SCD) and COVID-19 remain unproven as of today, a large body of data suggests a plausible association with an increased incidence of SCD in both community and hospital settings. Though asymptomatic carriers of COVID-19 among close contacts of confirmed cases are a well-recognised entity, the epidemiological significance, the clinical relevance and the prevalence of thromboembolic disease among this specific populace remain obscure. Collating clinical observations and factual contexts with a larger body of evidence to probe this possible complication (thromboembolic) through remote association (asymptomatic primary COVID contacts) with deadly implications (sudden unexplained deaths) is a dire need of the hour.

5. The Protective Shield of BCG during COVID-19 Pandemic - A Myth or Reality?

Prof. Vishak Acharya K,DTCD, DNB (Resp Medicine), Dr. Krishna Moorthy H, MS, DNB (Surg), MCh, DNB (Uro) MNAMS, Prof. Laxman Prabhu G, MS, MCh, DNB (Uro), Prof. Venugopal P, MS, MCh. American Research Journal of Urology, Volume 5, Issue No. 1, 2021, pp. 1-5.

As the COVID-19 pandemic unleashed its unimaginable blow to health and economy world over, the guardians of health found themselves woefully short of solutions to counter the cataclysm that was unfolding. The pace at which the pandemic spread giving no time to develop novel interventions, compelled the health care providers to fall back on repurposing used medicines and interventions, one of which being the Bacillus Camille Guerin vaccine

(BCG). This drug has been of particular interest to the Uro-oncologists owing to its proved immunogenic efficacy in Non-Muscle Invasive Bladder Cancer (NMIBC). In this paper, we review the literature to explore the utility of BCG as a protective shield for COVID-19 infection.

DR B.SadanandaNaik

6. Naik BS. Low-value health care in the COVID-19 pandemic. Lancet Glob Health. 2021 Sep;9(9):e1213. doi: 10.1016/S2214-109X(21)00353-3.

This is a clarification on a published article which alleged Indian doctors not treating covid-19 patients as per evidence-based medicine. Author pointed out the statutory obligation of the doctors practicing in India to follow the treatment guidelines issued by the public health authorities.

DR Archith Bolor et al

7. Use of multidimensional item response theory methods for dementia prevalence prediction: an example using the Health and Retirement Survey and the Aging, Demographics, and Memory Study

Nichols, E., Abd-Allah, F., Abdoli, A., Archith B, ...Murray, C.J.L., Vos, T.

BMC Medical Informatics and Decision Making, 2021, 21(1), 24

DOI: 10.1186/S12911-021-01590-Y

Summary :

2019 estimates suggest that there are an estimated 4.9 million individuals living with dementia in the United States and an estimated 51.6 million individuals living with dementia globally . There is a lack of national representative data especially in low-income countries. This study used multidimensional IRT-based methods to predict prevalence in the HRS sample. Compared to previous algorithms, this model had similar or better accuracy in the sample. Prevalence was higher in females than males and increased over age, with a prevalence of 4% in individuals 70–79, 11% in individuals 80–89 years old, and 28% in those 90 and older. This method could be used for various national surveys in the future.

8. Measuring routine childhood vaccination coverage in 204 countries and territories, 1980-2019: a systematic analysis for the Global Burden of Disease Study 2020

Galles, Natalie C.; Liu, Patrick Y.; Updike, Rachel L.; Archith B, ... Mosser, Jonathan F.

Aug 2021 in The Lancet

DOI: 10.1016/S0140-6736(21)00984-3

Summary :

Routine childhood vaccination coverage in 204 countries between 1980 and 2019 were collated. It was found that 14.5 million children worldwide still lacked one dose of DTP. Only 11 countries and territories met this threshold across nine of the assessed vaccines. This study gives us an insight that the objectives Global Vaccine Action Plan (GVAP) and Immunization Agenda 2030 have to be relooked into .

9. Subnational mapping of HIV incidence and mortality among individuals aged 15-49 years in sub-Saharan Africa, 2000-18: a modelling study

Sartorius, Benn; Van der Heide, John; Yang, Mingyou, Archith B, ... Dwyer-Lindgren, Laura

Jun 2021 in The Lancet HIV

DOI: 10.1016/S2352-3018(21)00051-5

Summary:

Data was analysed from 44 countries in sub-Saharan Africa from 2000–2018. It was observed there was a wide variation in the HIV incidence between the countries and the mortality also varied from 0.8- 676.5 deaths per 100 000 people. The set targets of 75% decline wasn't met in most of the countries.

10. Global, regional, and national burden of stroke and its risk factors, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019

GBD 2019 Stroke collaborators

September 2021The Lancet Neurology

DOI: 10.1016/S1474-4422(21)00252-0

Summary :

Stroke remains the second-leading Level 3 cause of death and the third-leading Level 3 cause of death and disability . In this study, several important risk factors such as high BMI, ambient particulate matter pollution, high fasting plasma glucose, high systolic blood pressure, alcohol consumption, low physical activity, kidney dysfunction, and high temperature were found . Ischemic strokes accounted for 62.4% of the cases, while intracerebral haemorrhage (27.9%), and subarachnoid haemorrhage (9.7%) were seen in increasing incidence. This study is the first to show the sizeable global effect of non-optimal temperature on the burden of stroke and its pathological types.

11. Global mortality from dementia: Application of a new method and results from the Global Burden of Disease Study 2019

GBD 2019 Collaborators

July 2021 Alzheimer s & Dementia Translational Research & Clinical Interventions

DOI: 10.1002/trc2.12200

Summary:

1.62 million people were estimated to have died of end-stage dementia in 2019. Decubitus ulcer, bronchitis, dysphagia, hip fracture, pneumonia, and bedridden status were more common in people who died, however bronchopneumonia, aspiration pneumonia, and sepsis were the most common caused of death. With the increasing aging population these numbers are bound to increase globally.

12. Mapping inequalities in exclusive breastfeeding in low- and middle-income countries, 2000–2018

Natalia V Bhattacharjee, Lauren E Schaeffer , Simon I Hay ,.. ArchithBloor; Local Burden of Disease Exclusive Breastfeeding Collaborators

June 2021 Nature Human Behaviour

DOI: 10.1038/s41562-021-01108-6

Summary:

This study maps comparable subnational estimates of EBF prevalence across most LMICs over an almost 20-yr period. EBF prevalence decreased in most of the countries from 2000 to 2018. Detailed description of patterns gives a comprehensive picture of the problem which will aid policy making decisions.

Dr Abhijith R Rao et al

13. Rajaram Rao A, Thakral M, Jain B, Soni N, Waris M, Ballav Dey A, Kumar V. Conducting virtual geriatric medicine final professional examination during COVID-19 pandemic. Ann Geriatrics Educ Med Sci 2021;8(1):25-28.”
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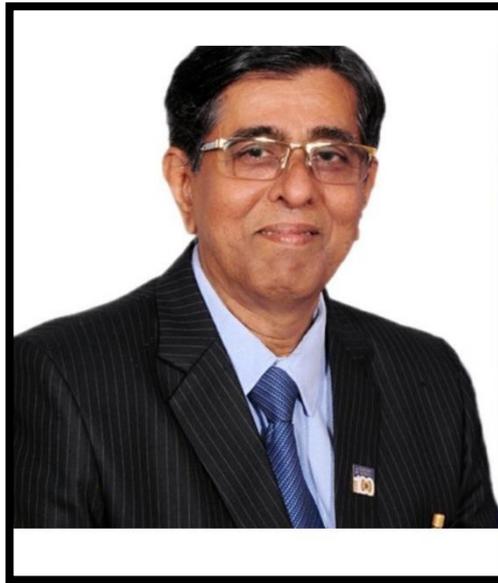
CALL FOR ARTICLES

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Author instructions@page 98

**LISTEN TO THE LEGEND – AN INTERVIEW WITH DR MOHAN PAI
(as told to Dr Archana Bhat)**



Profession and Philosophy make the Perfection:

1.Sir , could you please tell us about your interest in science during your childhood days

In 1966 when I was in PUC accidentally I came across the Death Certificate of my Grandfather issued in 1948 by our family doctor showing the cause of death as Angina Pectoris. I wanted to find out what this was. I did it in 1971 as a second year MBBS student. I found myself keenly interested in the Science of Medicine. Later the newer terminologies CAD, AMI and ACS came in to practice. I learnt the difference.

2.Sir , can you pen down some interesting memories in your medical tenure and your fascination to cardiology

In 1972 (I was 21 years young) I felt the ‘missing Beat’ and met Dr. V. R. Kamath MRCP our faculty in KMC. He said it is nothing serious and to forget it. I accepted it as innocuous but could not forget it. I read the term ‘Tachy arrhythmias’. Same year I was down with the Enteric Fever. My younger sister, 19 years age was down with ‘flu’. The family Physician had visited her and prescribed some tablets and a ‘Mixture’. She said she was feeling ‘very weak’ and I checked her pulse rate. To my surprise it was only 38 per minute. Nobody knew what was happening!! I went to the Library and found out about Brady Arrhythmias. Dr. A. V. Shetty did an ECG and declared she has 3rd Degree Heart block!!I managed her with only beta stimulants over the next 5 decades and she is still alive. Probably no one knewit was congenital without the wall or valve abnormalities.

From Paul wood to Lown to Braunwald: By 1974 I had studied the Cardiac Arrhythmias in depth. All we had was an ECG machine in Government Wenlock hospital. But that was sufficient. 'Myocardial Infarction in the Young' was my PG Thesis. I had collected 200 cases in two years. NoLipid profiles, noCK-MB, no Trops, no ECHO and no CAG. Majority of them were smokers and had Inferior wall Infarcts. Even for lipid profile study I had to take special permission from the DMO.I concluded that their Right Coronary was congenitally narrower than other branches!! I knew it was presumptive.

A short stint in AIIMS New Delhi: Twice I appeared for written entrance test for DM cardiology in AIIMS under Dr. M. M. Bhatia and Delhi University under Dr. Padmvathi. Both times I passed but not in Interviews. Dr. K.K. Malhotra offered me DM in Nephrology and Prof. M.M.S Ahuja DM in Endocrinology. Somehow it did not appeal to me. Yet I worked for 2 years as the Registrar in Medicine. All that needed was 6 months training in Cardiac Cath and Pace maker implantation for a PG trained doctor. They did not give non DM candidates these trainings. I observed that after 5+1+3 years of medical training 6months short period of additional training in any of the above sub specialties and I wondered why they had ever created these sub specialty degrees. The thought was not wrong!! Later it became a corporate tool in private Institutions sold for Crores of rupees!!

3. Sir , could you tell us about the memorable days of your residency

Representing the Resident doctors Association I had the opportunity to meet PM Morarji Bhai Desai and the future PM Atal Behari Vajpayee (Then MEA). Morarji Bhai was stiff. Atalji was friendly, jovial and sociable. When I told him that I am from Mangalore, he was pleased and said 'Mangaloreans are well cultured people'. I was in the delegation that met Raj Narayan the erstwhile HM of India. He was a character who had met us in his sand pit Akhad to discuss official matter! He had bought 100 those large white elephants health vans on which a medical team could visit villages to give basic health care. The vans were really good and I worked in them. One van came to Mangalore KMC under the Community Medicine where also I was the first Physician to go the villages because of my past experience. Though the vans were good they died a slow death due to a chronic disease called government bureaucracy.

I remember felicitating Bharat Ratna Pundit Bhimsen Joshi



4. Kindly elaborate on the vast work you have done in medical writing

In 1986-87 we had worked on a project called 'Twice Weekly treatment of mild hypertension' with a small grant using a combination of Propranolol. It was a cross over study under the guidance of Prof. B.M.Hegde. The paper was accepted at the Asia Pacific Congress of Cardiology in Auckland, New Zealand in 1987. He presented the paper. It was an elating experience.

I wanted to present papers entirely on my own. I took courage and sent my paper 'Myocardial Infarction in the Young' to World Heart Federation (WHF) in Geneva. It was accepted and was presented at the World Congress of Cardiology in Manila, Philippines in 1990. Half a dozen delegates from different Countries had a word of appreciation for the paper even though it was not technically equal to their own papers. The only Indian who met me had objection for I had not done CAG.

Eugene Braunwald: My paper in Berlin, Germany, in 1994 was attended by the father of modern cardiology Prof. Eugene Braunwald who shook hands with me and had a word of appreciation. It was a glorious moment in my academic life. Participation in satellite symposium in Osaka, Japan and Presenting papers in Barcelona, Dubai, Mexico City all added insight to knowledge.

5. Your role to community through Lions club

I chose two Medical service projects as the President of Lions Club of Mangalore in 1991. One was screening 500 school children for Rheumatic heart diseases using an old model

ECHO in the laborers families settled in a village near Mangalore. Almost 5% of these children had suffered from Rheumatic fever and 1% had residual valve disease.

Similarly 5000 school children in the outskirts of Mangalore were administered de-worming medicines under my personal guidance within the school premises. Both works were given to my PGs as their thesis work.

6. Some experiences which you can never forget

Sudden Cardiac Deaths: This was an Enigma. In a wedding hall in 1976 I saw a elderly gentleman abruptly collapsing and pulse less. I asked few youngsters around me to make human screen around me and the fallen patient. They did. I gave thumps on his Precordium. After the third I felt his pulse feeble but coming. Two minutes later he sat up looking all round. I do not know whether he would have survived even without the thump. A similar situation occurred in the fish market.. Dozens of onlookers were there. He died. I did not dare to give the Thump or EC massage for they would have jumped on me for killing him with a thump!!

7.Few lines about ancient medicineand alternative medicine

With my high school knowledge of Sanskrit language I studied the ancient text book of ‘SushruthSamhitha’ and found a paragraph describing the Cardiac ischemic pain which I quoted in my thesis in 1975. This prompted me for two more interesting works worth remembering. When I was the Registrar in Medicine in AIIMS in New Delhi, I conducted a small personal study of prescribing *Dhyana* and *Pranayama*, two components of Patanjali Ashtanga Yoga to 25 age and sex matched patients with mild hypertension (up to 160 mm Hg systolic BP) for 20 minutes daily for four weeks. The systolic BP came down to 130 or 140 in 20 out of 25 patients at the end of the daily practice but always back to the previous reading next morning when they came for the session suggesting that the BP lowering effect is not sustained even for one day. They were crossed over to 40mg of Propranolol daily which had a better effect.

The second was administering 30ml concoction of ‘Karela’ juice (bitter gourd or *MomordicaCharantia*) to 100 T2 DM patients of less than 5 years duration. It was apparently effective as much as 2.5mg of Glybenclamide. I sent my PG to the Ayurveda College at Koppa to prepare it. It was cumbersome and not worth. One of my PG did the work. People who have never read his original work simply boast about Ayurveda. That is my observation.

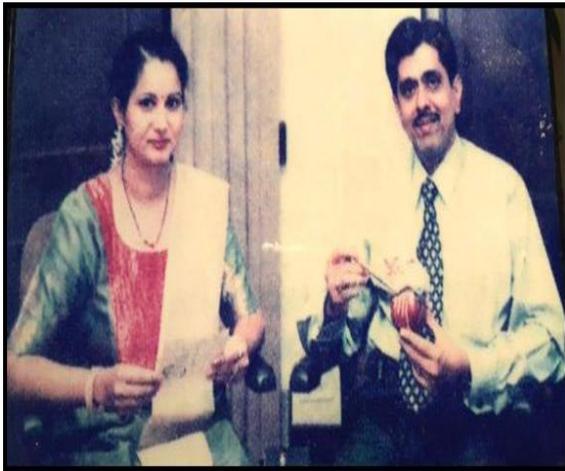
Sushrutha was a keen observer and had good knowledge of human anatomy and was a good surgeon while treatments of medical diseases were rudimentary and needed improvements. I started my own TMT stress testing unit in 1987 and conducted thousands of tests till I rested in 2017 at the age of 65. I used this controversial method to detect ‘*Young Coronary Gene*’ in the siblings of patients who died as ‘Young Coronaries’. The peers of API Journal rejected the paper for 3 years and finally published it somewhere in early 2000.

8 .The difficulties of our profession now ?

Like all my senior, contemporary and junior colleagues I too have seen the good, bad and the ugly side of the Profession. Good patients and relatives as well as nasty people, faced Consumer Court, Judges who did not know the difference between corneal artery and Coronary artery and volte face friends. Nothing shook my confidence. I always believed in **प्रज्ञानम्ब्रह्म** that is *Conscience* is my God from *Aitereya Upanishad*. One day I was surprised to read a line of thanks to me in the obituary of a middle aged Lady whom I had treated for

many years for DM, HT and CKD and was handed over to one of my Nephrology colleague for Dialysis. Three years later her family still remembered me. It was like a silver lining amongst black clouds. I survived COVID19 infection thanks to my students Dr. Girish and Dr. Harish whose treatment I followed like a good patient and my opinion was asked before using any medicine on me as a Courtesy and not a necessity. This life is worth living.

9. Your role as API D .K. President in 2000



This post taught so many truths of Life. I produced and telecasted the first Medical serial in the local TV cable net work in Kannad named '**Aarogya Bhagya**' launched on World Heart Day in 2000. Ten of our own members of API participated in this successful venture. It was pleasure and good experience to work for the successful State conference organized by our branch. We had donated the first glucometer in Wenlock hospital as a part of State APICON 2001

10 . Heard you love music and arts ... is this true sir ?



I am trained in Hindustani classical vocal music in the traditional Gosai Gharana of Swami Haridas of Vrindavan. Dr. Chakrapani, Dr. Damodar Shenoy and myself we had a few 'baitaks' at my residence as well as we successfully organized 'Gunjan' music festival in KMC. I gave performance in API and IMA.





Even now I have twice monthly Baitaks at home. Probably I would have been a professional singer if I had not been a doctor. I am extremely attracted by Indian miniature paintings. My wife Usha and I have visited more than 50 museums all over the world in search of Indian miniatures, written extensively on this subject in Kannad, Konkani and English Media. I have visited the beautiful Kangra valley in Himachal Pradesh where the best of Indian miniatures were produced from 16th to 18th century. I have done mountain trekking extensively in Himachal Sikkim.

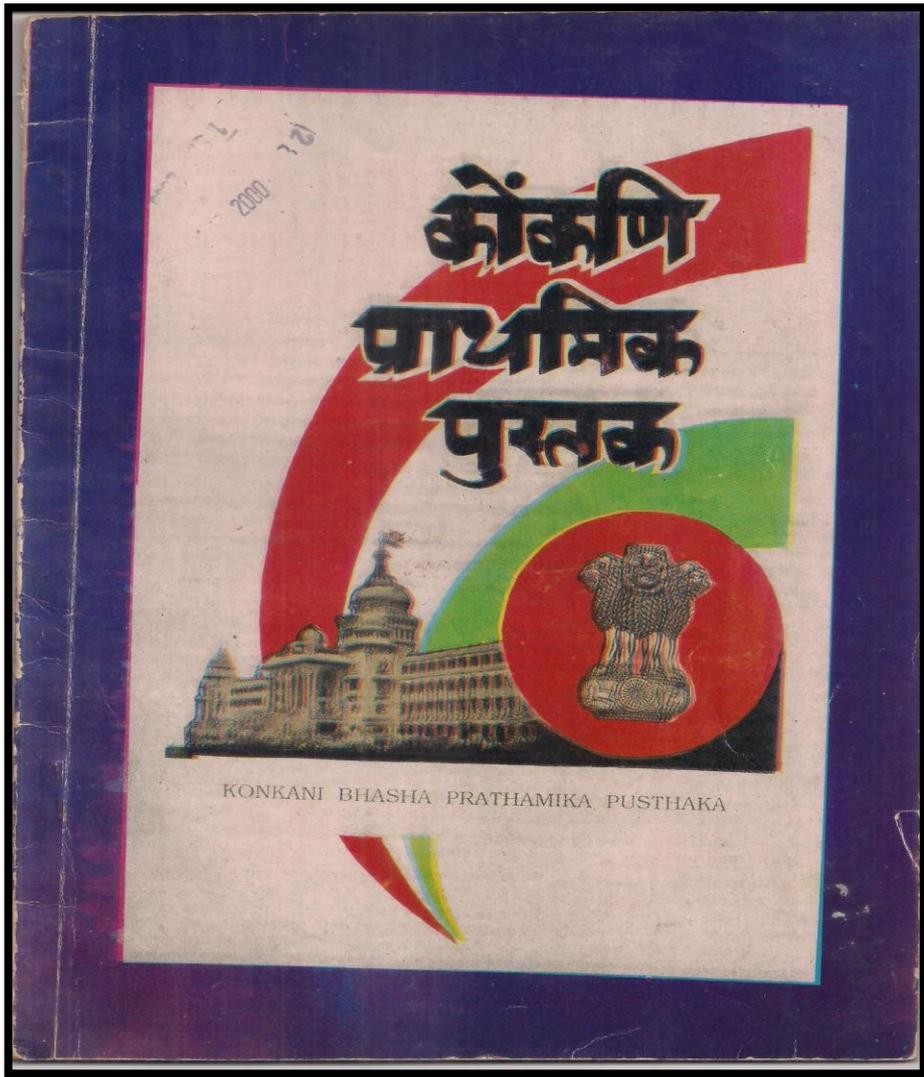


Some photos about your personal life



**12. Your contribution to Konkani people and language definetly needs applause
.Kindly pen down few sentences and few photos**

I have written more than 250 Konkani articles in various print media and published two novels, more than 100 articles in Kannad out which about 50 are on medical subjects and published two novels, about 50 articles in English and authored one novel by the name 'For the love of Mandovi' the story of great migration of Konkani people from Goa in the 16th century. I got the previledge to be the president of the Konkani Sammelan this year 2020-21 and also the previledge to be the editor of the first Konkani prime designed for Konkani teaching in schools.





- 1.. Awarded MMShanbhag award by Goa Government for the work done in Konkani in Karnataka
- 2.Study scholarships for students taking Konkani as third language
3. erstwhile primary education minister of Karnataka inaugurating Konkani education in the State for the first time and Primary text book edited by me.
4. Inviting erstwhile Governor of Karnataka Smt. Rama Devi for inaugurating theKarnataka State API conference in Mangalore 2001. (Later changed to Dr.Maalaka Reddy the HM)
5. A point to discuss with Kannad writer and editor of 'Tarnga' magazine Mrs. Sandhya Pai in Manipal





Dealing with ‘The Difficult Patient’



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Your most unhappy customers are your greatest source of learning.

Bill Gates

In any business, there are bound to be some customers who are unhappy, unsatisfied and angry.

Healthcare is not an exception.

An expected result which did not materialize, the duration of a hospital stay or a cost estimate - which has been over-run, or a below par service experience, and the chances are that you have a disappointed, disillusioned or a disgruntled patient and family.



In healthcare, it's unfair to label all such patients as belonging to 'The Difficult Patient' family. I offer my sincere apologies to the patient community.

I have been in such a patient's pair of shoes during my tryst with cricopharyngeal spasm and pharyngeal diverticulum – its evaluation, endoscopies and surgical treatment.

The problem lies not just with the patients, their families, but with some deficiencies in communication and mutual trust and respect between '*the care-givers*' and '*the care-receivers*'.

The result is that we have "Difficult Situations" – not just "Difficult Patients"

In healthcare, difficult situations are not uncommon, and you will deal with the so-called 'difficult patients' throughout your career.

It's certainly understandable that patients who are having pain or anxiety; may sometimes lose control of their emotions.

It's also certainly understandable that doctors, nurses, and allied healthcare personnel are human too, and may have their own set of 'labile' emotions. When tested – *and unless trained enough*, some are prone to reach and breach their tolerance 'threshold' too.

When these two sets of 'labile' individuals encounter a trigger – a miscommunication or misunderstanding, to complete the 'triad'; a potentially volatile 'difficult' situation is likely to unravel - if not handled tactfully.

Every rise of blood pressure is not 'pathological'. It may well be a 'physiological' response to a situation. Similarly, every anxious patient or their attendant's anxiety and questioning is not pathological, but may be a normal physiological reaction in the circumstances.

A brief pause to appreciate this fact, will do you a world of good.

It will help you in handling the 'difficult' situations better.

Any patient or patient attendant – even the toughest physically and mentally; is tested emotionally in a medical or surgical hospitalisation. In such situations, it's natural that some may end-up losing control of their emotions.

Trust me that it won't help matters if you end-up losing your 'cool', when the patients lose their cool.

I am going to share some personal approaches to managing these '*difficult*' patients. Some of these lessons were learnt 'the hard way', but you are welcome to learn from them.

1.Prevention is better than Cure

The way the patient visits to the hospital, walks into the front office and the clinic, the type and manner in which he or she asks questions and listens to your answers, the manner in which they receive your recommendations, and the manner in which they conclude the consultation; showcases a ton of information about the patients and their attendants.

It reveals a lot of information about their emotional status, their intelligence, their backgrounds, et cetera.

The discerning consultant and hospital staff – with the eyes to see, the ears to listen, and the mind to interpret; will then proceed to make the necessary adjustments in their own strategies to understand their anxieties, answering their queries, allaying their fears and being clear in their communication.

Overtly-anxious, hyper-inquisitive and hyper-sensitive patients - and their families; need to be dealt with in a more pro-active manner.

A clear and honest discussion as per the disease condition, its treatment, the cost involved, the chances of any complications, and the additional costs likely in such an event ; are issues that need to be clarified in the simplest and clearest of terms.

An important advice for you, is to avoid interacting with a ‘difficult’ patient when you are not at peace with yourself. It’s quite likely your mind may be pre-occupied with a hemodynamically unstable patient in the ICU, an argument with a colleague or a family member, or similar situations.

I recommend you to take in a few deep breaths of fresh air, drink a glass of water, or go for a small walk down the corridor – if feasible. Clear your mind, and then only start your interaction with an upset or unhappy patient or their attendant.

Above all, its desirable that a culture of care and concern – Empathy, is cultivated and practiced on the hospital premises in every action.

A pleasant “Good Morning” or an enquiring, “Sir, can I help you?” and similar actions; go a long way in maintaining positive vibes in the hospital, and keeping emotions in check.



These measures will go a long way in ensuring that *'difficult'* scenarios are not a regular feature in your practice.

2. Practice Empathy

Any patient – even 'a difficult patient', can be transformed into your *'Brand Loyalist, Brand Advocate or Brand Ambassador'*. It is up to the way, they are made to *'feel'*.

The 'Art' of Medicine Series, is designed to serve as a very appropriate guide to crafting delightful patient experiences. You are welcome to improvise and implement the following recommendations to suit the special requirements of the situations.

a. Remain calm, never take it personally.

When dealing with *'difficult'* patients, the best approach is to remain calm. This allows you to assess the situation calmly, and to address the patient better.

In trying to diffuse a *'difficult'* situation, we cannot let ourselves become *'difficult'* – which is a 'sure-shot' recipe for disaster.

Be calm, keep your body movements restricted, and keep the pitch and tone of your voice soft. The most important goal of any strategy to deal with a difficult patient is to *"Never let the situation worsen, and get out of control"*.

b. Listen to them. And Keep Listening.

"I want you to be happy. Tell me what has upset you ?"



Allow the patient or family to vent their feelings. Let their anger burn until the fire burns out.

It's essential to address the patient by name, maintain eye contact and speak softly - even if the patient is shouting at the top of his or her voice and nearly yelling their lungs out.

Let the eye and head movements convey to the patient or attendant that you understand his or her feelings, and feel their pain.

Practice "The 'Art' of Silence" – until the anger burns out and patient goes silent.

Here are a set of important "Don'ts" in such a volatile scenario:

- Never interrupt a patient party in full flow,
- Never be in a hurry to call-in the ‘Security’,
- Never attempt to provide counter arguments, and
- Never try to put the blame on the patient’s head and shoulders.

If you do any of the above, you will succeed in only *‘fanning-the-flames’* of the patient’s fire.

A physiological disappointment will turn into a pathological dispute.

Once the patient has finished firing his or her guns, calmly summarise the patient’s grievance, and then explain the situation.

c. Apologise.It’s important to say, “Sorry”.

Upset patients may incite you to get into an argument. While you may be completely entitled to voice your opinion, it’s important to exercise utmost restraint and avoid using negative comments.

Simply apologize for the lack of proper communication or misunderstanding, and reassure the patient that you will take care of it.It’s true. Saying ‘Sorry’ may be difficult but not saying it may prove to be very costly. It may result in negative reviews, negative publicity and even a lengthy consumer litigation.

3.Offer a Solution

It’s always better *‘to put the ball in the patient’s court’*, and therefore politely request for the patient family for suggestions to diffuse the situation.

“Sir, how would you like us to resolve this issue ?”

Be pro-active to consider the patient’s solution or offer a solution, or a choice of solutions to the patient’s complaints.



An immediate resolution would be ideal, but may not be feasible. So, it’s prudent to give the patient and yourself time to think over the situation and solution, before accepting it.

Trust me, *“every problem has a solution”*, and unless either party really makes a *‘mess-of-it’*; no problem ever reaches the consumer forum or court of law, for a redressal.

Dr. Inessa

UNSUNG HEROES AND UNNOTICED HEROICS



CV- JOHN PRASAD MENEZES

Capt John Prasad Menezes is a Master Mariner and a practicing Marine Consultant, Expert Witness, Mediator and Maritime Arbitrator at the Domestic and International circuits. He is the CEO of Menezes and Associates, Mangalore. Currently, Member Executive Board and Trustee of Nautical Institute London; Director, Mission Seafarers India Association, Mumbai and Hon. Secretary, Institute of Chartered Shipbrokers London, East India Branch, Chennai.

By : Capt. John Prasad Menezes – FNI, FICS, FICA

Ever since the first case of Corona Virus was detected in Wuhan, China, on 17th November 2019, the world has never been the same. It took a good three to four months for the countries across the world to wake up before we experienced how deadly the Corona Virus effect was. Ultimately, we all experienced a complete lockdown to stay indoors for over forty days when it was declared a Covid 19 Global Pandemic, in March 2020. There were Doctors, Para Medical staff who treated the Corona Virus patients and saved many lives. There were also Police personnel who ensured law and order on the streets, enforcing lockdown curfews in order to ascertain that the Corona Virus did not spread. Yet the Doctors, Para Medical staff, Police personnel, and frontline workers moved in their vehicles. The hospitals ran, besides the entire population of the countries lived in their houses with uninterrupted food and domestic supplies. Yes, are you aware that it is the Maritime Transport Industry which kept the world going to support global supply chains between the haves and have nots.

Shipping is a service oriented Industry. Ships transport goods like Crude Oil (later refined to petroleum products), Gases (our cooking cylinder of 14 kgs contains a mixture of Butane and Propane), Edible Oil, Bulk Cargoes like Coal, Iron Ore, Grain, Fertilizer and finished goods in Containers. Maritime Transport dominates International Trade. It is estimated that approximately 75% of world trade by weight moves by sea but when measured in terms of value the share is approximately 60%. For ships to run efficiently we need competent

seafarers. Hence, on 2nd April 2020 International Maritime Organisation (IMO- the UN part for shipping and Maritime Affairs) called for seafarers to be designated as ‘Key Workers’ during COVID-19. The IMO called on governments to designate professional seafarers and marine personnel, regardless of their nationality as ‘Key Workers’ for providing an essential service, as it was crucially important that the flow of commerce by sea was not unnecessarily disrupted.

Generally, a ship has a crew strength of 20 to 25 which comprise Navigating Officers, Marine Engineers, besides Deck, Engine and Catering Crew. The ship is continuously on the move, taking employment where the cargoes are available. The normal tenure on board ranges from three to four months for senior officers, six months for junior officers and perhaps six to eight months for the crew. Hence, one has to imagine what hardships the seafaring community has been undergoing towards embarkation and disembarkation of ships in ports as they had to transit through Airport Territories of different countries which allowed crew change and seafarers repatriation, leave alone the Quarantine period in hotels at different stages of transit.

The Contribution by shipping fraternity cannot be measured monetarily, it must also be measured in degree of sacrifice in the face of problems and adversities. The difficulties faced by seafarers (floating staff) over and above the normal call of duty were as under:

- Risk of infection spread, being in closed or close quarters in accommodation spaces.
- Timely change of crew and repatriation problems from Ports thereof.
- Once relieved, quarantine problems enroute to home destination.
- Problems of food items connectivity, laundry etc aboard ships.
- With more domestic crisis, presence not possible for long periods with loved ones at home.
- Absence of medical monitoring i.e early detection.
- Additional workload on others in case of infection on board.
- Not getting shore leave i.e make good with meager personal requirements, change from ship’s monotony/routine work was not possible.
- Despite advent of mobile phones, rendered difficult communication with home vis-a-vis sim problems.
- In aviation, unlike marine staff not stranded in foreign countries, just stuck in home/base locations.

- To the credit of world fleet staff, corona related deaths aboard ships were perhaps far and few, due to extra vigilance.
- Also, despite contractual nature of employment, unrest by and large was absent.
- Ship owners on their part fulfilled salary commitments promptly, although revenue suffered.
- Although the nature of most sea farer employment is contractual with no social security, there was motivation towards collective effort to prevent Covid spread.

I now come to what the support staff or service providers experience when a ship enters a port. First of all, about 48 hours prior entry to port, vessel declares that the Vessel is healthy and requests for free pratique. In yester years ships used to fly the yellow (Quebec/Quarantine) flag to indicate the good health of the crew/cargo on the Vessel. The port health authorities of a country board Vessel, first check the condition of the crew/cargo and only if the vessel is fit in all respects for entry, the pilot then boards for the process of berthing, which is followed by custom and immigration formalities. The loading and unloading process follows thereafter. Almost 45 years in the Maritime Industry, I am now practically experiencing Vessels in Quarantine.

Many a time, we generally study these issues theoretically, but today ‘Notice of Readiness’ tendered by Master and time to count in Port for lay time calculations become more relevant. These are terms used to determine the hire aspects of a Vessel in Port for a layman.

I did a ‘Sale and Purchase’ Condition Inspection of a Bitumen Carrier in New Mangalore Port last August 2020. The client was from Panama and the prospective buyer from Dubai. Time Zones had to be adhered to with deadlines met. Well, one has to go through the Covid Protocols of the Institution, as well that of the ship. On some ships for boarding, we had to produce a RT-PCR negative test certificate. Hence, timing was crucial as sometimes ships Berth according to High Water Tide. In March 2021 this year, I had the opportunity to carryout a Flag State Administration Annual Safety Inspection of a drill ship 100 Nautical Miles off the E coast of Kakinada in Bay of Bengal. Undergoing, 10 day Quarantine in a Raja Mundry Hotel, and an RT-PCR negative test was the basic requirement. The drill ship had over 120 people on board with over 10 different nationalities. They do four weeks on and four weeks off as nature of their work is stressful and demanding. This drill ship engaged in oil wells drilling during this Pandemic had to shut down operations for about a month when key people on board were affected. With a disciplined approach, the situation was overcome. It took a while for drill operations to be resumed.

To sum it all, activity has been usual at the Waterfront and Offshore Industry whether it was drilling of an oil well or discharge of Bitumen for our infrastructure of road

construction. In effect, from drilling for Crude Oil and Petroleum Gases to the last distillate of Bitumen, the contribution of Shipping as mode of Transport cannot be overemphasized. Seafarers ensured there was no disruption in supply lines of medical gear through Crude to Construction material, practically all walks of life, i.e. lifeline of trade and food chain was intact due to their 'down to earth' invisible service contribution. This contribution to be viewed not from national angle alone, but global perspective. Money is only a small compensation for the sacrifices.

The Covid 19 Pandemic however had a drastic effort on the Cruise Line and Passenger Ship Industry. Seafarers serving on passengers ships lost their jobs due to these ships being laid up. The silver lining being, after the vaccination process in place in developed countries, the cruise Industry has begun its revival plans. We, in the Shipping Industry, have come a long way from wooden crafts, sailboats to steel hull and motor driven ships. There have been technological advancements from morse code to satellite phones and electronic aids to navigation with autonomous green ships in the anvil. No matter what, the bottom line remains 'Half the world will starve to death and the remaining half would freeze to death, if there are no ships moving grain or energy products.

So the next time, we the people of India take time off on a Sunday to bang our kitchen utensils, light lamps for Corona Virus to go away or shower petals on frontline key workers, let us remember the seafarer too for his contribution as an unsung hero and for the unnoticed heroics he renders to society and humanity by running ships, maintaining the complete functionality of global supply chains as an essential service 24x7x365.

Jai Hind.

AUTHOR INSTRUCTIONS

GUIDANCE FOR AUTHORS AND CONTRIBUTORS

API DK LAHARI is a quarterly published e magazine of API D. K. CHAPTER , released in the www.apidk.org website with archival options of all the issues released stored in pdf format (each issue) also with download option .The magazine will include academic and non academic articles .The languages included will be English and kannada.We are hopeful that this will give a unique opportunity to all API members to share their vision and views on various aspects of our profession and beyond.

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Instructions on preparation of the manuscript to be submitted

1. Manuscript may be in English/Kannada.
2. Font size -12 (Times New Roman) , double spacing , 1.5 inches margins all around the page.
3. All the write ups should include a Title page with author information

4. Title Page should contain the following : Full name/names of all the authors with contact address, cell number, email id, designation, position in the Institution and a passport sized recent photo

Paper/write up categories

1. Scientific articles
2. Member's accomplishments
3. Obituaries
4. News and Views
5. Residents corner
6. View point
7. Medico legal pearls
8. Journal Watch
9. Patient page
10. Listen to legend
11. Life beyond medicine [Non-medical topics]
12. General health articles [more for lay public]

Scientific articles

1. Case reports

Word count- 1500, Maximum of 03 tables & or figs, 07 Refs

2. Review article

Word count- 3500, Maximum of 5 tables or figs

3. Academic challenge

An interesting case presentation with detailed academic discussion

Abstract, word count -3500, Maximum of 5 tables or figs

4. Diagnostic test and interpretation

Word count- 1500

5. Images in Medicine

Photos with good resolution and quality, Word count -500

Abstract is required for case report, Review article, Academic Challenge, and Diagnostic test and interpretation. Word count is inclusive of abstract.

References should be in Vancouver style.

Member's accomplishments

Brief information by self or others on the accomplishments of our API members in profession, public life, academics and other walks of life

Word count- 1000

Obituaries

Condolence message and short write up on the deceased member, One message -500 words

News and Views

Write up on medical happenings with a personal opinion expressed

Word count -1000

Resident's corner

Medical article by post graduates/interns

Word count as per the criteria mentioned for the scientific articles by the members

View point

Write up on various problems or happenings in field of medicine or medical profession

Word count -1500

Medico legal pearls

Articles on medical legal aspects of including consumer protection act and other acts applicable to the medical profession

No word limits

Journal Watch

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