

**Hi!**

I AM late in bringing out this issue, and lot of water has passed under the bridge since last issue. I am pained as I talk about sad demise of my dear father. I am going to be reminded of him every day. But all I can do now is to express my gratitude for what he has done for me. Here is his obituary on page 2. It is going to be tough changing gears from this mental state, but life has to move on, as always there are thousands



of things to learn. Here are this month's topics. a) Antimicrobial Resistance Pattern Among Aerobic Gram-negative Bacilli of Lower Respiratory Tract Specimens. B) Tumor Marker Requests In A General Teaching Turkish Hospital c) Aggressive Use of Diagnostic Services is Counterproductive d)Should Adult Male Circumcision Be Recommended for HIV Prevention

I think these would interest you ☺

**Antimicrobial Resistance Pattern Among Aerobic Gram-negative Bacilli of Lower Respiratory Tract Specimens**

As you know, lower respiratory tract problems in ICU patients can be quite troublesome. And I guess choice of drugs can also be difficult. I found an article that takes a look at precisely this problem. The study found that The common GNB isolates were **non-fermentative gram-negative bacilli** (NFGNB, 31.9%), followed by



**Pseudomonas aeruginosa** (21.5%) and **Klebsiella spp** (19%). Elderly (24.8%) and adults (19.2%) showed increased rate of GNB isolation. In both tracheal and bronchial GNB isolates, the **highest mean resistance was to cefazolin (98.8%) and ampicillin (97.6%)** while the **lowest mean resistance was to amikacin (48.5%)**. Details on page 2

**Tumor Marker Requests In A General Teaching Turkish Hospital**

I read somewhere that Tumor markers be better called tumour monitors. Because, there are many reasons besides the presence of malignancy, which causes increased levels of TM. Instead of marking (diagnosing) a tumor, they 'monitor' a diagnosed



tumor well, of course a good exception is PSA, which is considered useful for screening. When I saw this paper my eyes lit up. This paper takes a look at tumor marker requests, does an audit & suggests a judicial ordering of tumor markers. Take a look on page 3.

**Aggressive Use of Diagnostic Services is Counterproductive**

Medical fraternity requisitions diagnostic tests for multiple reasons. More often than not, the tests lead to more tests either to exclude or to confirm doubts raised by the test results. These tests have an inherent morbidity, discomfort and cost



Growing expenditure on diagnostic tests without matching improvement in the health status warrants an internal audit of the laboratory utilization.

Check the rest on **page 4**.

**Should Adult Male Circumcision Be Recommended for HIV Prevention**

Three randomized, controlled clinical trials in South Africa, Kenya, and Uganda were recently unblinded early because interim analyses concluded that circumcision of HIV-negative adult males reduced their risk for acquiring HIV infection through penile-vaginal sex. In each trial, men who



had been randomly assigned to an intervention group receiving circumcision had a lower incidence of HIV infection in up to two years of follow up, compared to men who were assigned to a control group not receiving circumcision. **Details on Page 5**

**Also in this issue ....**

My father's obituary on page 2, 'Web Links To Interesting Cases' - page 3, film review 'Harry Potter and Order of Phoenix' - page 4 and 'Parting Thought' by Arthur C. Clarke on last page.

My



So this is it for this month, have a nice time.

**Bye!**



**Sachin**

The closer look at health...

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Issues since Jan, 2005 available online -

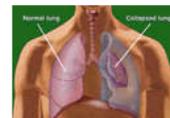
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Leave your **comments & r** check others at -  
<http://sachinkale1.tripod.com/comments.htm>  
(1, Cont. )

*A humble effort towards understanding medical science & becoming a deserving member of robust, science based medical community.*

[Indian J Chest Dis Allied Sci 2007; 49: 19-22]

## Antimicrobial Resistance Pattern Among Aerobic Gram-negative Bacilli of Lower Respiratory Tract Specimens of Intensive Care Unit Patients in a Neurocentre



- Ω Background. Analysis of the tracheal and bronchial isolates from the lower respiratory tract specimens of the intensive care unit (ICU)-admitted patients, was carried out for the year 2002 with a perspective of looking at the antibiotic resistance pattern.
- Ω Methods. Lower respiratory tract secretions (tracheal or bronchoscopic aspirates) of 370 patients were cultured, identified and antimicrobial susceptibility performed by standard methods.
- Ω Results. Out of samples obtained from 370 patients, 274 (74%) were culture positive. A total of 489 bacterial isolates were recovered from 270 patients; 451 were gram-negative bacilli (GNB) and 38 were *Staphylococcus aureus*. In four of the patients, *Candida* spp was isolated. The common GNB isolates were **non-fermentative gram-negative bacilli** (NFGNB, 31.9%), followed by ***Pseudomonas aeruginosa*** (21.5%) and ***Klebsiella* spp** (19%). Elderly (24.8%) and adults (19.2%) showed increased rate of GNB isolation. In both tracheal and bronchial GNB isolates, the **highest mean resistance was to cefazolin (98.8%) and ampicillin (97.6%)** while the **lowest mean resistance was to amikacin (48.5%)**. Isolation of two organisms per specimen (41.4%) was commonly seen. Multidrug resistance to the tested antimicrobials was more frequent in NFGNB (6.6%) and *Pseudomonas aeruginosa* (5%). There were no remarkable differences in the overall mean drug resistance among tracheal and bronchial GNB isolates.
- Ω Conclusions. Isolation practices, antibiotic policies, effective surveillance, maintenance of epidemiological trends of infections and, rapid molecular diagnosis are the need of hour in improved and speedy management of lung infections with resistant organisms.

GNB	Am	Pc	Cz	Co	Gm	Ak	Nt	Ce	Ci	Ca	Cf
NFGNB	87.5	87.5	100	87.5	100	75	62.5	75	87.5	75	87.5
<i>Pseudomonas aeruginosa</i>	100	80	100	100	90	40	80	100	90	80	90
<i>Klebsiella</i> spp	100	100	100	81.8	100	23.1	100	92.4	92.4	100	77
<i>Escherichia coli</i>	100	92.4	100	77	92.4	38.5	92.4	92.4	92.4	84.7	92.4
<b>Mean resistance</b>	<b>96.8</b>	<b>89.9</b>	<b>100</b>	<b>81.5</b>	<b>95.6</b>	<b>44.1</b>	<b>83.7</b>	<b>89.9</b>	<b>90.5</b>	<b>84.9</b>	<b>86.7</b>

Resistance rates (%) to tested antimicrobials for the most common GNB isolates of bronchial specimens *ampicillin* (Am), *piperacillin* (Pc), *cefazolin* (Cz), *cotrimoxazole* (Co), *gentamicin* (Gm), *amikacin* (Ak), *netilmicin* (Nt), *cefotaxime* (Ce), *ceftriaxone* (Ci), *ceftazidime* (Ca)

### Obituary: Sadanand Kale, my father



He was another common man with some uncommon qualities. He could be strict, he could be angry but he understood what a child feels. He was a best friend a child, and a young man can have. Surely, those who knew him will agree.

He had such a zeal for life. He always wished that we have great time.

When I was a child he made mathematics easy for me; as a young man, he encouraged me to read books & magazines. He helped me through the tough life of a medical student and saw me become a (relatively!) self sufficient doctor.

He was ill for couple of years. Like many of us it was tough for him to bear his illness; but his spirit outshone his health problems. When he got little better last year, he purchased a used Maruti 800, against my trepidation. And then onwards he used to travel 100 kms every day, visiting Devgad, Nevasa, Ranjangaon, Paithan, Kankaleshwar number of

times. He just loved to travel, I was worried; but he always used to return, with my dear mother and driver by his side.

On 13th August, Monday morning, he had a freak accident; neither he nor we know how he fell from his bed where he was reading newspaper; and, I think that accident broke something more than his femur, it broke his spirit; and on Wednesday 15<sup>th</sup> August, he developed pulmonary embolism and passed away.

Now when I look at his bed... his TV remote control, eyes fill up with tears; and mind fills up with his fond memories.

To every child, father occupies a special place in his heart. Of course my feelings towards my father are no different; he was truly special.

He gave me more than my life; he gave me a way of life!

(2, Cont. )

*Indian Journal of Clinical Biochemistry, 2007 / 22 (1) 52-56*  
**Tumor Marker Requests In A General Teaching Turkish Hospital**



- Ω The results of this study showed that there is an increased workload in the tumor marker requests. While there was a 123% increase in the total number of TM requests, only 8.3% increase in the total test number was determined between 2003 and 2004 at the same time period. In respect of the number of cancer diagnosis in 2004, a great difference between TM requests and cancer diagnosis were considered. This finding supports being more aware of appropriate TM testing and making orders more comfortable.
- Ω Most of TM requests were CEA, CA 19-9 and CA 125 that ordered for gastrointestinal tumor suspicion. However, **in gastrointestinal tumors multiple TM requests have no superiority to single TM request** and do not exactly improve the sensitivity or specificity of individual markers
- Ω The number of **tests performed on the wrong sex of patients** showed the necessity for giving more information regarding the use of these markers. Even clinicians ordered such a TM request, the laboratory could reject these tests before the analyses. Thus, cost effectiveness of TM can be provided by the laboratory itself..
- Ω Screening for malignancy did not help to determine the source of the primary tumour because the site was known in most cases while ordering TM, e.g. screening ovarian cysts, screening hepatocellular carcinoma in hepatitis patients, screening for benign prostate hypertrophy.
- Ω On the other hand, the percentage of biopsies in patients who have elevated levels of TM was higher than the percentage of biopsies in patients with normal TM levels. Also the proportion of cancer diagnoses was significantly higher in patients with elevated TM levels.
- Ω Elevated TM levels was a warning and clinicians required further researches for these patients especially pathological side.

In conclusion this study showed the significant rise of TM requests even though it is a retrospective study for 3 months period. Despite published guidelines, screening is still the main purpose of TM orders and may cause unnecessary worries and increasing cost.



**Web links to some Interesting Cases**

1. Orbital abscess showing beautiful staphylococci - <http://www.flickr.com/photos/sachinkale/1204421728/>
2. Colposcopic cervical biopsy showing carcinoma in situ - <http://www.flickr.com/photos/sachinkale/1204415522/>
3. Rings of P. falciparum <http://www.flickr.com/photos/sachinkale/1204408112/> & <http://www.flickr.com/photos/sachinkale/1203544189/> (Poor image quality)
4. Reactive lymphocyte typical of viral fever <http://www.flickr.com/photos/sachinkale/1203528355/>
5. Classic rouleaux formation in a case of Multiple myeloma <http://www.flickr.com/photos/sachinkale/1204388028/>
6. Nice gross picture of mucinous cystadenoma of ovary <http://www.flickr.com/photos/sachinkale/1204386318/>
7. Textbook like gross picture of Serous ovarian tumour of borderline malignancy <http://www.flickr.com/photos/sachinkale/1204383912/> & <http://www.flickr.com/photos/sachinkale/1203520321/>

(3, Cont.)

**Aggressive Use of Diagnostic Services is Counterproductive**



- ⌘ Background: Medical fraternity requisitions diagnostic tests for multiple reasons. More often than not, the tests lead to more tests either to exclude or to confirm doubts raised by the test results. These tests have an inherent morbidity, discomfort and cost.
- ⌘ Growing expenditure on diagnostic tests without matching improvement in the health status warrants an internal audit of the laboratory utilization.
- ⌘ Methods: A retrospective utility audit was done for certain routinely advised laboratory tests at a hospital. Blood urea estimation in annual / periodic medical examination (AME/ PME), bleeding and clotting time in pre-anaesthetic check-up and aspartate aminotransferase (AST) and antibodies to hepatitis C virus (anti-HCV) in diagnostic work-up of acute onset jaundice were included in the audit.
- ⌘ Results: During the study period, 793 individuals underwent AME / PME and urea estimation did not provide any additional information in these cases which was not inferred by serum creatinine. Similarly, in diagnostic workup of acute onset jaundice, 6049 aspartate aminotransferase (AST) estimations in 1024 patients did not contribute anything more than what was inferred by alanine aminotransferase (ALT).
- ⌘ Prevalence of anti HCV antibodies in acute onset jaundice in serving soldiers (11 out of 1225;0.89%) though more than that in the blood donors from the same population (17 out of 4105; 0.41%) was less than anticipated false positives (18 out of 1225; 1.5%) as per the claimed specificity (98.5%) of the test kit.
- ⌘ None of the 2766 bleeding and clotting time tests detected a bleeding or coagulation disorder.
- ⌘ Conclusion: The study reveals significant overuse of the laboratory that may not be good for the patient and the organization in terms of direct and indirect costs due to false positive results. This laboratory overload adversely affects the quality and availability of laboratory results. Therefore, a test should only be advised, if positive or negative result would dictate a change in patient management.

**Nirastra Bhav! : Harry Potter & Order of Phoenix**

That is Harry Potter doing his jaadu in desi. Well, I am as confused about what the movie was about, after coming back from the movie, as I was while watching it. I thought the confusion was because I missed the first 10 min, but, when I read that only thing that happens in those 10 minutes is the incident that prompts Harry to use his magic outside the Hogwarts School of Witchcraft and Wizardry and leads to a threat of expulsion from the school. Needles to say he is saved from expulsion by his Prof Dumbledore. Then there is a piece about ministry getting paranoid that Dumbledore is creating a magician's force, which could pose security risk to ministry. And they send Dolores Umbridge, as a teacher at Hogwarts, who makes life of students quite miserable. How she meets her nemesis, is one part of picture. And it is as non-noteworthy as rest of the movie.

Then there is a threat from (now returned) Lord Voldemort, and he is trying to take over control of Harry's brain. And that is climax of the movie, where Voldemort and his cronies have a confrontation with Harry, Ron, Hermione & colleagues. Dumbledore appears from nowhere and fights a battle of his life to return the attack launched by evil Voldemort. Then Harry does a mental battle with Voldemort and prevents him from taking over his brain. And that was it. Well, I was waiting that something worth attention to take place somewhere in the movie. But I kept waiting and movie ended without giving that something. Must have made sense to die hard HP fans, but for the uninitiated in HP saga, it was a case of movie falling well short of expectation. I think this movie can be best seen as one episode of seven part series of HP books. But who is complaining when it is a big hit at the box office!



(4, Cont.)

**Male Circumcision for Prevention of HIV Transmission: What the New Data Mean for HIV Prevention in the United States**

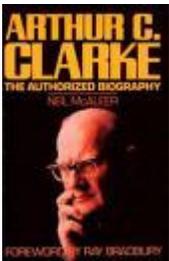


Based on the data from the three African clinical trials, **it is likely that circumcision will decrease the probability of a man acquiring HIV via penile–vaginal sex with an HIV-infected woman in the US.** Until public health recommendations are available for the US, **some sexually active men may consider circumcision as an additional HIV prevention measure,** but should do so only in consultation with their physician or health care provider, and with a clear understanding of the costs and risks of circumcision and the need to continue use of other, proven prevention measures (e.g., reducing the numbers of sex partners and using condoms consistently and correctly). Men who choose to be circumcised should also be counseled about the importance of refraining from sexual intercourse following circumcision, until wound healing is complete.

To consider the possible impact of public health recommendations for male circumcision, we must also take into account HIV incidence in high-risk groups, as well as adoption of other protective behaviors, such as condom use. For example, HIV incidence among US MSM (Men having sex with Men) recruited in community- and venue-based samples was, on average, about 1.9% annually, and 36% of MSM in the US National HIV Behavioral Surveillance System reported having unprotected anal sex with a casual partner in the last 12 months before interview. There are few data on HIV incidence among high-risk heterosexuals in the US, but there are limited data on condom use: in 2002, 16% of high-risk heterosexual men and 24% of high-risk heterosexual women reported that they never used condoms during penile–vaginal sex with a non-primary partner. Currently available data on disparities in rates of prevalent HIV infection and AIDS and the prevalence of circumcision among US men suggest **that black and Hispanic men may have particular opportunities for reduction of risk of HIV acquisition through circumcision.**

*Editorial comment: This data would be of interest in India where most of HIV transmission occurs through penile-vaginal intercourse, I believe.*

**Parting Thought...**



Every revolutionary idea seems to evoke three stages of reaction. They may be summed up by the phrases: (1) It's completely impossible. (2) It's possible, but it's not worth doing. (3) I said it was a good idea all along.

~ *Arthur C. Clarke* 1917-, *British Science Fiction Writer*

*(End, 5)*