CG Koch, L Li, E Hixson, A Tang, and S Gordon

BACKGROUND: Postoperative infections increase morbidity, resource use, and costs. Our objective was to examine whether within guideline recommendations an optimal time exists for an initial dose of antibiotic to reduce postoperative infections in general surgery, and to simulate the magnitude of a reduction in infections should an optimal time be implemented.

STUDY DESIGN: The population consisted of 6,731 patients who underwent 7,095 general surgery procedures between January 5, 2006 and June 25, 2012. Patients with pre-existing infections, such as pneumonia and sepsis, and patients with no recorded use of antibiotics were excluded, as were patients on vancomycin and surgical procedures longer than 4 hours in duration. The final analysis dataset included 4,453 patients. The National Surgical Quality Improvement Program was used for perioperative variables and outcomes. The end point was a composite of wound disruption; superficial, deep, organ space, surgical site infections; and sepsis. Semiparametric logistic regression was used to study the association between antibiotic timing and infection.

RESULTS: There were 444 (10%) patients with a primary end point of infectious complication. A nonlinear “bowl-shaped” relationship between duration of interval from antibiotic administration and surgical incision and infection was observed; lowest risk corresponding to administration time closest to incision was 4 minutes before incision (95% one-sided CI, 0e18 minutes). The model suggested optimal timing would result in an 11.3% reduction in the primary infection end point.

METHODS: Patient population, the population consisted of 6,731 patients who underwent 7,095 general surgery procedures between January 5, 2006 and June 25, 2012. The analysis dataset included 4,453 patients with exclusions as defined in Figure 1 and characteristics as shown in Table 1.

We excluded cases with pre-existing infections, such as pneumonia and sepsis, and those with no recorded use of antibiotics. We included only the first operation if multiple operations were recorded in the same patient and excluded patients on vancomycin and surgical procedures longer than 4 hours in duration. Antibiotics used >5% of the time included cefazolin (49.8%), an ampicillin-based agent (27.6%), ceftriaxone (5.9%), metronidazole (5.5%), and ciprofloxacin (5.5%). Of 4,453 operation, 1,130 (25.38%) used more than one kind of antibiotic.

DATA SOURCES: Our data source for baseline variables and postoperative infection outcomes was the NSQIP. The National Surgical Quality Improvement Program is administered by the American College of Surgeons with data collected by trained registry staff using a standardized template. The NSQIP is an IRB-approved registry for research. The choices of antibiotic and intraoperative timing of administration were recorded in the electronic anesthesia record. Earlier work at our institution using Six Sigma methodology reported success with use of the electronic anesthesia record as a tool to monitor process improvement for perioperative antibiotic timing prophylaxis. The choice of antibiotic was determined by the staff surgeon for individual surgical procedures in compliance with Centers for Disease Control and Prevention guidelines. Antibiotic timing was calculated as the time from antibiotic initiation to surgical incision. Antibiotics were redosed according to individual antibiotic pharmacokinetics; of note, an automated notification indicator flag alerted the provider as part of the electronic anesthesia record when another dose was indicated. Automated electronic alerts are effective in improving timely prophylactic antibiotic administration and with redosing. 6,7] IRB approval with a waiver of informed consent for this investigation.

CONCLUSIONS: Risk of infectious complications decreased as antibiotic administration moved closer to incision time. These data suggest an opportunity to reduce infections by 11.3% by targeting initial antibiotic administration closer to incision. Abridged version. Full article on Medscape.
UKZN – EXIT ORIENTATION PROGRAMME
The College of Health Sciences invites all final year and postgraduate students to an EXIT ORIENTATION PROGRAMME.
Date: Saturday, 7th September 2013
Time: 09h00 – 15h30
Venue: Lecture Room T1, T Block
UKZN Westville Campus
RSVP: by Friday 30th August 2013
padayacheef@ukzn.ac.za
Please include your student number and degree in the subject line when accepting this invitation.
The following training skills will be conducted.
• Managing your Finances
• Employment Trends: An employer and graduate perspective: Interview skills versus soft skills
• Value of HPCSA on-going registration, CPD and Ethics
• Work Ethics and Professional Behaviour
• Diversity Appreciation
• Managing relationships in the Workplace
• Conflict Management
• Preparing a Competency based CV and application letter
• Image grooming and Etiquette

ADVANCED AIRWAY WORKSHOP
Date: 19 October 2013
Time: 08h30 – 13h00
Venue: IALCH SMART Centre & Anaesthetics Seminar Room,
Enquiry: Dr R Naidoo - rubeshann@yahoo.com
RSVP: Hannah at hannahnai@ialch.co.za
Please note: Registration is free and it is limited to 40 candidates

THE 15th SOUTH AFRICAN BURN SOCIETY CONGRESS - 2013
The South African Burn Society Congress is scheduled as follows:
Date: 2 - 4 September 2013
Venue: Oyster Box Hotel
Information and registration visit the website: www.saburnsociety.com

UKZN POSTS: REF: SCM09/2013 COLLEGE OF HEALTH SCIENCES
MEDICAL SPECIALISTS (various disciplines) (Appointment: 1 Oct 2013 - 31 March 2014) Renewable depending on funding). There is no prescription as to specialty. The academic title of the successful incumbent will be determined during the selection process in line with the UKZN criteria and guidelines for academic promotions.
http://vacancies.ukzn.ac.za/home.aspx
The primary responsibility of the post is clinical teaching and the development and management of clinical training programmes at undergraduate and postgraduate level. Candidates are expected to retain their academic, clinical competence and duties may therefore include clinical responsibilities and a research component. Opportunities to undertake subspecialist training may be negotiated provided the training functions of this post are not compromised. Successful applicants will report to the Dean and Head of School.
Minimum Requirement:
Registration as a specialist with the HPCSA. Advantage: • Evidence of teaching in undergraduate and postgraduate programmes and participation in academic activities.
Enquiries:
Mr SA Mbona, 031-260 4450 E-mail: mbonas@ukzn.ac.za Remuneration: DOH OSD Salary rates pa incl. benefits. Commuted overtime may be payable. Closing date: 6 September.
Application form: www.ukzn.ac.za
http://vacancies.ukzn.ac.za/Home.aspx
Completed forms must be sent to smcprocure@ukzn.ac.za
Advert Reference Number MUST be clearly stated in the subject line.

COLLEGE RESEARCH SYMPOSIUM 2013
Dates: 12-13 September
Venue: K-RITH Tower Building
The department would like to wish all the best to the following doctors who are participating in this year’s College Symposium: Drs B Biccard, L Drummond, T Moodley, Y Moodley, Z Moyce, R Rodseth and A Torborg.

LATEST PUBLICATION
• Gunning M, Pekins Z, Crilly, von Rahden R. Paramedic rapid sequence induction (RSI) in a South African emergency medical service: A retrospective observational study. SAMJ September 2013:103(9):632-637

2013 COLLEGE EXAMINATION DATES
DA written: 26 – 30 Aug
DA Oral: 03 – 04 Sep
Part II Oral: 14 – 17 Oct

UPCOMING EVENTS
SMART CENTRE MEETING
Date: 10 September 2013
Time: 15h00
Venue: IALCH (Seminar room)
CONSULTANT MEETING
Date: 10 September 2013
Time: 16h30
Venue: IALCH (Seminar room)
COMBINED ACADEMIC
Date: 20 September 2013
Time: 16h30
Venue: L5 Lecture Theatre, MS
Sponsor: Wesley - Palmed
• CLINICAL FORUM
17h00 Topics: General Consultant: A Khumalo
17h20 Topics: General Consultant: M Naidoo
• JOURNAL CLUB
Consultant: L Drummond Topic: Cardio-Thoracic
17h40 Registrar: R Randolph
17h55 Registrar: L Gqiba
• RESEARCH MEETING
16h30 Registrar: P Govender
16h45 Registrar: J Invernizzi
• REGISTRAR MEETING
All about life

A plane was taking off from Kennedy Airport. After it reached a comfortable cruising altitude, the captain made an announcement over the intercom, "Ladies and gentlemen, this is your captain speaking. Welcome to Flight number 293, non-stop from New York to Los Angeles. The weather head is good and, therefore, we should have a smooth and uneventful flight. Now sit back and relax... OH, MY GOD!" Silence followed, and after a few minutes, the captain came back on the intercom and said, "Ladies and Gentlemen, I am so sorry if I scared you earlier. While I was talking to you, the flight attendant accidentally spilled a cup of hot coffee in my lap. You should see the front of my pants!" A passenger in Business class yelled, "That's nothing. You should see the back of mine!"

**********

A man wasn’t feeling well so he went to the doctor. After examining him the doctor took his wife aside, and said, “your husband has a very sensitive heart. I am afraid he’s not going to make it, unless you treat him like a king, which means you are at his every beck and call, 24 hours a day and that he doesn’t have to do anything himself. On the way home the husband asked with a note of concern “what did he say?” “Well”, the lady responded, “he said it looks like you probably won’t make it.

**********

Eleven people were hanging on a rope under a helicopter, ten men and one woman. The rope was not strong enough to carry them all, so they decided that one has to drop off, otherwise they are all going to fall. They were not able to choose that person, but then the woman made a very touching speech. She said that she would voluntarily let go of the rope, because as woman she was used to giving up everything for her husband and kids, and for men in general, without ever getting anything in return. As soon as she finished her speech, all the men started clapping their hands.
CODEWORD
Aeon alone baleen baloney bane banjo bean beano been bone bony ebony elan enable enjoy ENJOYABLE lane lean leone loan lone noble nobly only

CROSSWORD
Across:
1. Duck;
3. All clear;
8. Junk;
9. Dovetail;
11. Cheap edition;
13. Endear;
14. Tender;
17. Streets ahead;
20. Eventual;
21. Omit;
22. Everyone;
23. Order.

Down:
1. Dejected;
2. Contend;
4. Lloyds;
5. Chew the fat;
6. Erato;
7. Rely;
10. Apparently;
12. Creditor;
15. Dreamed;
16. Strained;
18. There;
19. Cede

PRACTICE MADE PERFECT
CONFERENCE
Dates: 03 – 05 September
Venue: Makaranga Garden Lodge
Time: 18h00 – 21h30
Cost: Free of charge
CPD: 13 CEU points
Enquiry: Contact Wendy -0795114550

NEXT SUPER DAMN
Monday 30th Sept 2013
Contributions to: Saaliha Goga: saaliha@vodamail.co.za
Ayanda Mthethwa: mthethwaa@ukz.ac.za
Natasha Nzama: nzamah@ukzn.ac.za

7:15 FRIDAY MORNING MEETINGS – L5 LECTURE THEATRE

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>SPEAKER</th>
<th>CRITIC</th>
<th>MODERATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 Aug</td>
<td>Physiology of the endothelial glyocalyx and Fluid Management Breakfast sponsored by Palmed</td>
<td>Alphonius C</td>
<td>Solomon L</td>
<td>De Vasconcellos K</td>
</tr>
<tr>
<td>06 Sept</td>
<td>Peri-operative use of insulin in the type one diabetic</td>
<td>Pillay T</td>
<td>Chellan</td>
<td>Brouckaert N</td>
</tr>
<tr>
<td>13 Sept</td>
<td>Intra-operative cell salvage</td>
<td>Solomon L</td>
<td>Naidoo K</td>
<td>Singh D</td>
</tr>
<tr>
<td>20 Sept</td>
<td>The Pieter le Roux Memorial Lecture: Anaesthesia as an Occupational Hazard</td>
<td>Prof Arthur</td>
<td></td>
<td>Gopalan P</td>
</tr>
<tr>
<td>27 Sept</td>
<td>Accidental Hypothermia</td>
<td>Gibbs M</td>
<td>Mzoneli N</td>
<td>Muckaert</td>
</tr>
</tbody>
</table>

MON 02 Sept
15h00 FCA II: TUTORIAL N Brouckaert
16h00 CLINICALS Brouckaert/ Ramsamy

TUES 03 Sept
07h15 OBSTETRIC ANAESTHESIA ACADEMIC MEETING Management of a failed spinal? KEH

WED 04 Sept
07h00 M & M MEETING: KEH KEH
07h00 M & M MEETING: IALCH IALCH
07h00 M & M MEETING: PMMH PMMH
14h30 FCA PART I TUTORIALS Immunosity Anaphylaxis Inflammation Immunosuppressives S Naidu

THUR 05 Sept
07h15 M & M MEETING: RKK RKK
08h00 KEH ICU M & M MEETING Airway management in ICU S3, MS

FRI 06 Sept
07:15 FRIDAY MORNING MEETING: Peri-operative use of insulin in the type one diabetic L5, MS T Pillay

2013 DIARY
CLINICAL COURSE: DURBAN
16 – 20 September 2013
PACSA 08 – 10 November 2013, DBN
DEPT WEBSITE http://anaesthetics.ukzn.ac.za/Homepage.aspx

BIRTHDAYS

Tuesday, 03 September 2013
Raphael Samuel

Saturday, 07 September 2013
Jacinth Mudali

Sunday, 08 September 2013
Sailuja Naidu

Thought for the Day!

“Make a point of connecting with someone new every day. And re-acquaint yourself with anyone you have not spoken to for some time by going through your address book”