

AUDIT ON SURGICAL PROPHYLAXIS (SP):

HOSPITAL SUNGAI BULOH EXPERIENCE

*Dr Syamhanin Adnan & Ms Pang Chia Wen
Pharmacy Department
Hospital Sungai Buloh*

THE JOURNEY



2009

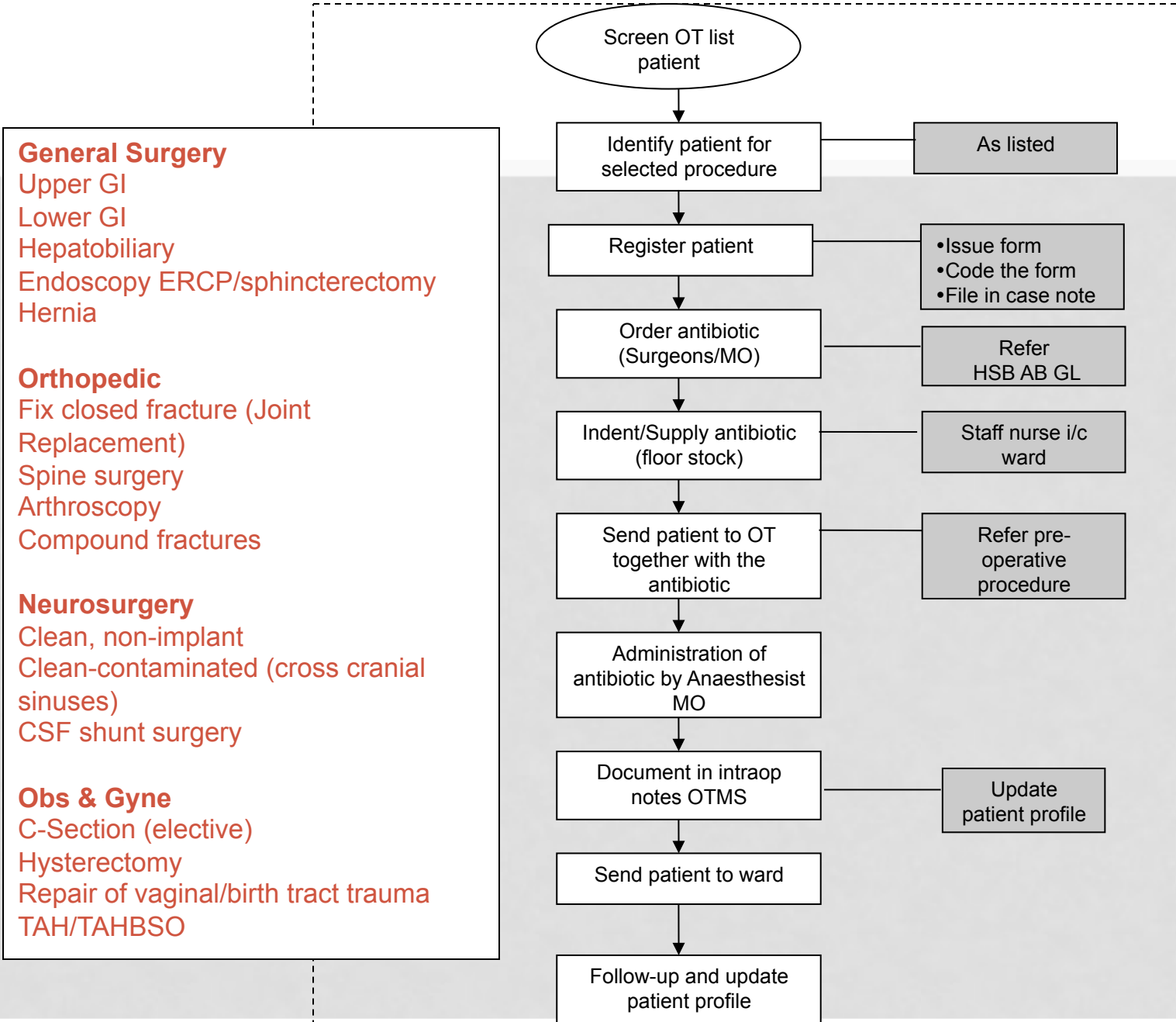
STUDY OBJECTIVE

- Demographic data - age, gender, race, LOS, discipline, type of surgery and classification of surgery.
- To describe administration time of surgical prophylaxis ab relative to incision time.
- To describe administration of repeated dose relative to duration of surgery.
- To describe inappropriate use of surgical prophylaxis:
 - antibiotic choice not following hospital guidelines
 - inadequate dose
 - inappropriate administration time
 - prolonged duration

EXCLUSION CRITERIA

- < 18 years old
- Received ab therapy 48 hours pre-operative
- Emergency operations
- Presumptive nosocomial infection

FLOW OF SURGICAL PATIENT REQUIRING SP



- General Surgery**
- Upper GI
- Lower GI
- Hepatobiliary
- Endoscopy ERCP/sphincterectomy
- Hernia

- Orthopedic**
- Fix closed fracture (Joint Replacement)
- Spine surgery
- Arthroscopy
- Compound fractures

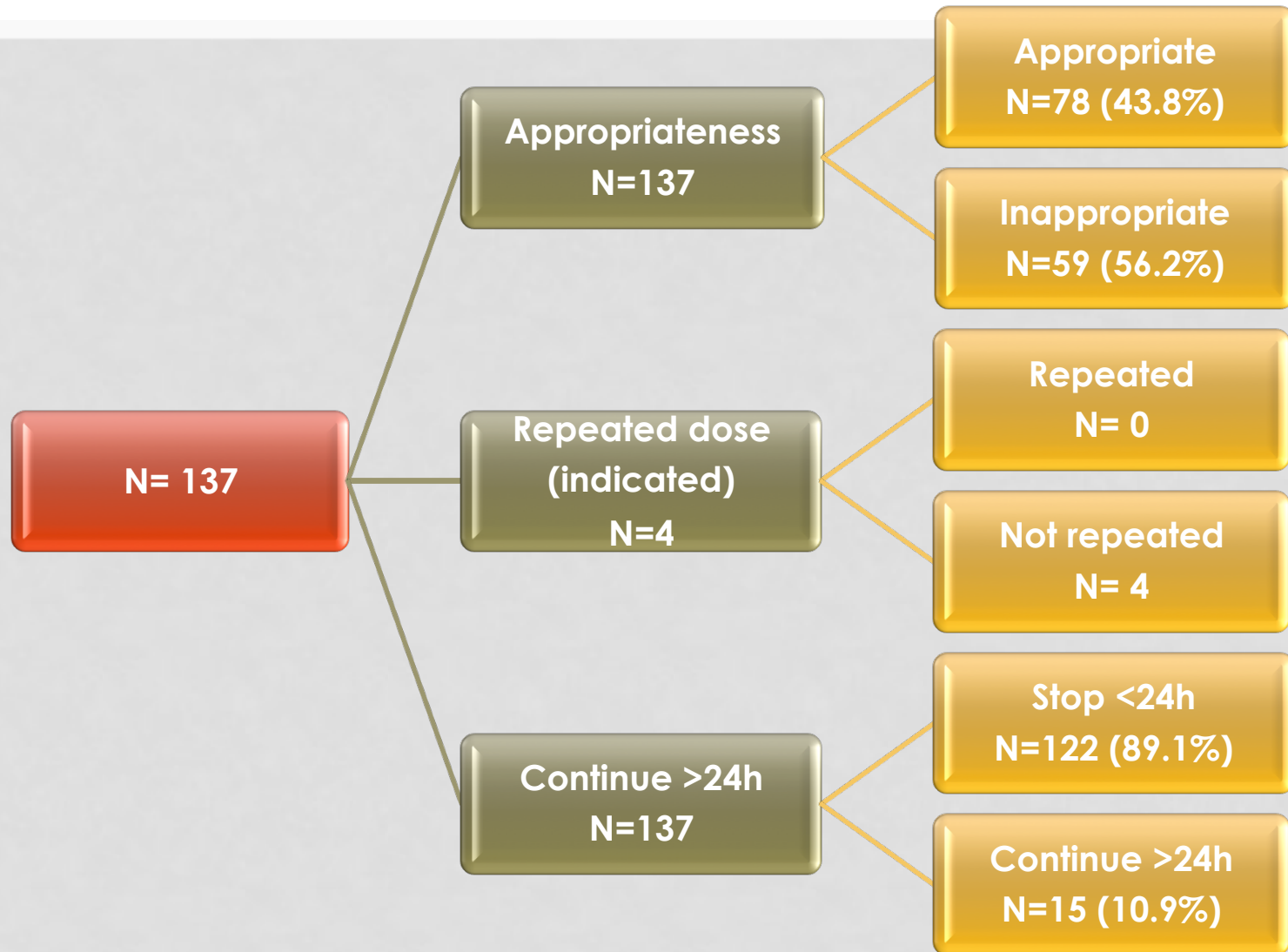
- Neurosurgery**
- Clean, non-implant
- Clean-contaminated (cross cranial sinuses)
- CSF shunt surgery

- Obs & Gyne**
- C-Section (elective)
- Hysterectomy
- Repair of vaginal/birth tract trauma
- TAH/TAHBSO

METHODOLOGY

- Prospective: April - June 2009
- N= 137

2009 : SUMMARY OF RESULTS



2009 : SUMMARY OF RESULTS

Inappropriateness of antibiotic use as surgical prophylaxis	N	%
Antibiotic not given*	40	80
Dose given is different from guideline	7	14
Antibiotic given different from guideline	5	8
Antibiotic given post incision	5	10
Additional antibiotic given as compared with guideline	2	3
Antibiotic given (not indicated in guideline ie clean surgery)	1	2
Total	59	100

TIMING OF SP

(appropriate if 30-60 minutes)

		N (%)
Administration time to first incision	30 - 60 minutes	74 (54.0%)
	< 30 minutes	18 (13.1%)
	*No administration time	40 (29.2%)
	Post incision	5 (3.7%)
	Total	137

2014

2014



BAHAGIAN PERKHIDMATAN FARMASI
KEMENTERIAN KESIHATAN MALAYSIA
Lot 36, Jalan Universiti, 46350 Petaling Jaya, Selangor Malaysia



Ruj. Tuan :
Ruj. Kami : KKM-55/BPF/104/012/11 Jld.3 (57)
Tarikh : 05 Jun 2014

SENARAI EDARAN

Tuan/ Puan,

PELAKSANAAN AKTIVITI *SURGICAL PROPHYLAXIS ANTIBIOTIC AUDIT* DI HOSPITAL-HOSPITAL KKM

Saya dengan segala hormatnya merujuk kepada perkara di atas.

2. Sukacita dimaklumkan bahawa *surgical prophylaxis antibiotic audit* akan dilaksanakan pada tahun ini yang merupakan salah satu daripada aktiviti di bawah Jawatankuasa Kawalan Infeksi dan Antibiotik Kebangsaan. Tujuan audit ini adalah bagi melihat *trend* penggunaan antibiotik bagi surgikal profilaksis dari segi masa administrasi, indikasi pemberian dos kedua, tempoh antibiotik yang diberikan dan juga mengenal pasti ketersediaan sumber untuk memperolehi data-data tersebut.

3. Bersama-sama dengan ini dilampirkan protokol bagi melaksanakan audit tersebut untuk perhatian dan rujukan pihak tuan/puan. Tempoh pelaksanaan audit tersebut telah ditetapkan selama 5 hari bekerja pada bulan Ogos 2014 dan laporan audit tersebut perlu dikembalikan kepada bahagian ini **sebelum/pada 8 September 2014** untuk tindakan lanjut pihak kami.

4. Sekiranya terdapat sebarang pertanyaan lanjut boleh menghubungi Pn. Noraini Mohamad di talian 03-7841 3338 atau Pn. Mardhiyah Kamal di talian 03-7841 3382. Kerjasama tuan/puan untuk melaksanakan aktiviti audit ini amatlah dihargai.

Sekian, terima kasih.

'BERKHIDMAT UNTUK NEGARA'

Saya yang menurut perintah,

(DR. SALMAH BINTI BAHRI)
Pegawai Amalan dan Perkembangan Farmasi
Bahagian Perkhidmatan Farmasi
Kementerian Kesihatan Malaysia

NM/mk

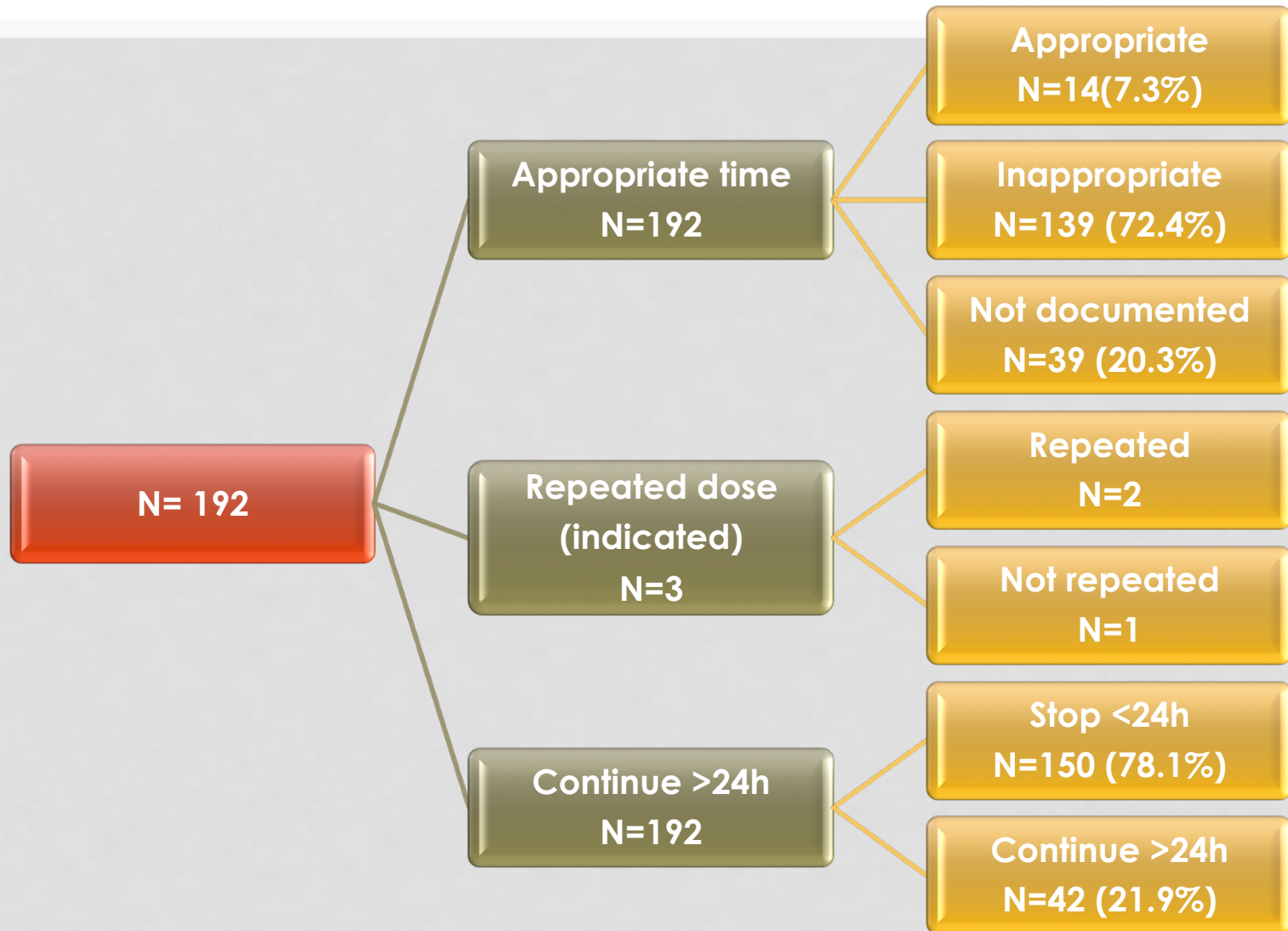
STUDY OBJECTIVE

1. Focus on the timing (National Antibiotic Guideline under review)
2. Duration of study = 2 weeks
3. Involved 6 disciplines
 - Obstetric & Gynecology
 - Orthopedic
 - General surgery
 - Neurosurgery
 - Plastic
 - Ear, Nose & Throat

METHODOLOGY

- Prospective: 18 – 29 Aug 2014
- N= 192

2014 : SUMMARY OF RESULTS



TIMING OF SP

(appropriate if 30-60 minutes)

		N (%)
Administration time to first incision	30- 60 minutes	14 (7.3%)
	< 30 minutes	130 (67.7%)
	*No administration time	39 (20.3%)
	Post incision	9 (4.7%)
	Total	192

2009 VS 2014

		N (%)	
		2009	2014
Administration time to first incision	30-60 minutes	74 (54.0%)	14 (7.3%)
	< 30 minutes	18 (13.1%)	130 (67.7%)
	*No administration time	40 (29.2%)	39 (20.3%)
	Post incision	5 (3.7%)	9 (4.7%)
Total		137	192

HOSPITAL SUNGAI BULOH
MEMO ANTARA JABATAN/BAHAGIAN/UNIT

RUJUKAN KAMI	Bil (82)dlm.HSB/ 770 / 7 / 5.3
TARIKH	25 Mar 2015
PERKARA	KEPUTUSAN AUDIT "SURGICAL PROPHYLAXIS" YANG DIJALANKAN PADA TAHUN 2014
KEPADA	RUJUK SENARAI EDARAN
DARIPADA	DR ROSHAYATI BT MOHD SANI
SALINAN KEPADA	PENGARAH HOSPITAL

Dengan hormatnya saya merujuk kepada perkara yang tersebut di atas.

2. Bersama-sama ini dipanjangkan keputusan audit "Surgical Prophylaxis" yang telah dijalankan oleh Jabatan Farmasi atas arahan Kementerian Kesihatan Malaysia bil **59 KKM-55/BPF/104/012/11 Jld 3 bertarikh 5 Jun 2014.**
3. Perhatian Ybhg. Datuk/Dato'/Tuan/Puan amatlah dihargai.

Sekian, terima kasih.

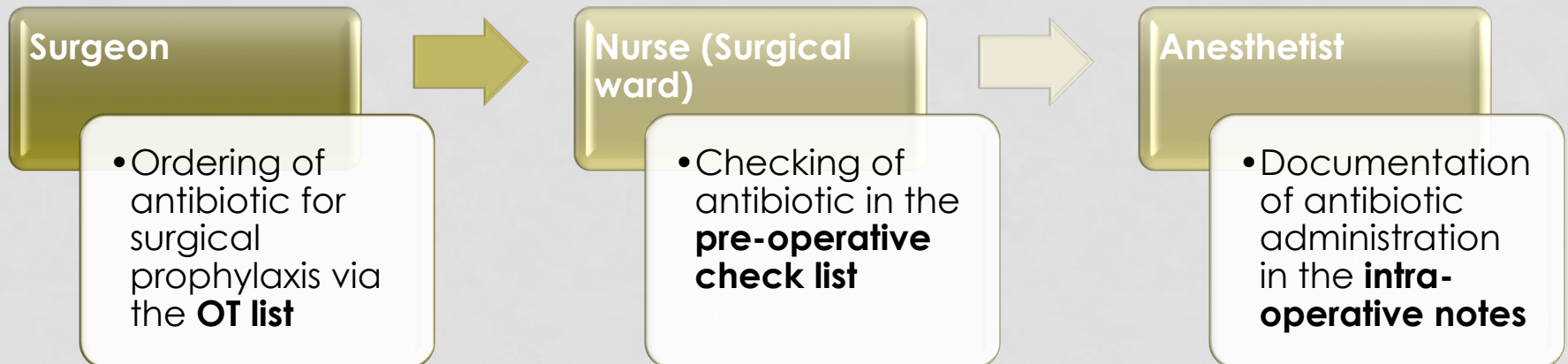
SUGGESTIONS FOR IMPROVEMENT

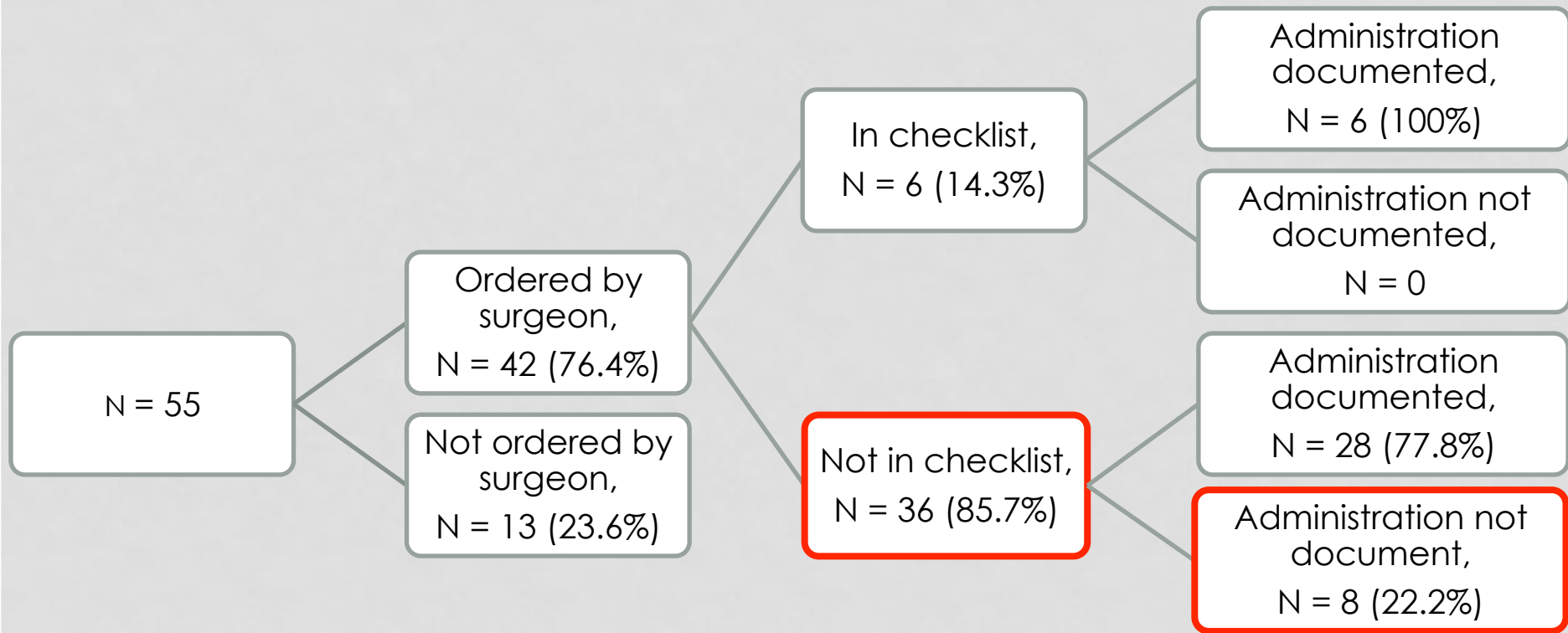
- To make the administration of antibiotic a compulsory section to be documented in the intra-operative notes
- To refine the workflow of antibiotic supply for surgical prophylaxis
 - Ordering of antibiotic via eHIS?
 - Antibiotic to be kept as floor stock at OT?

2016

OBJECTIVE

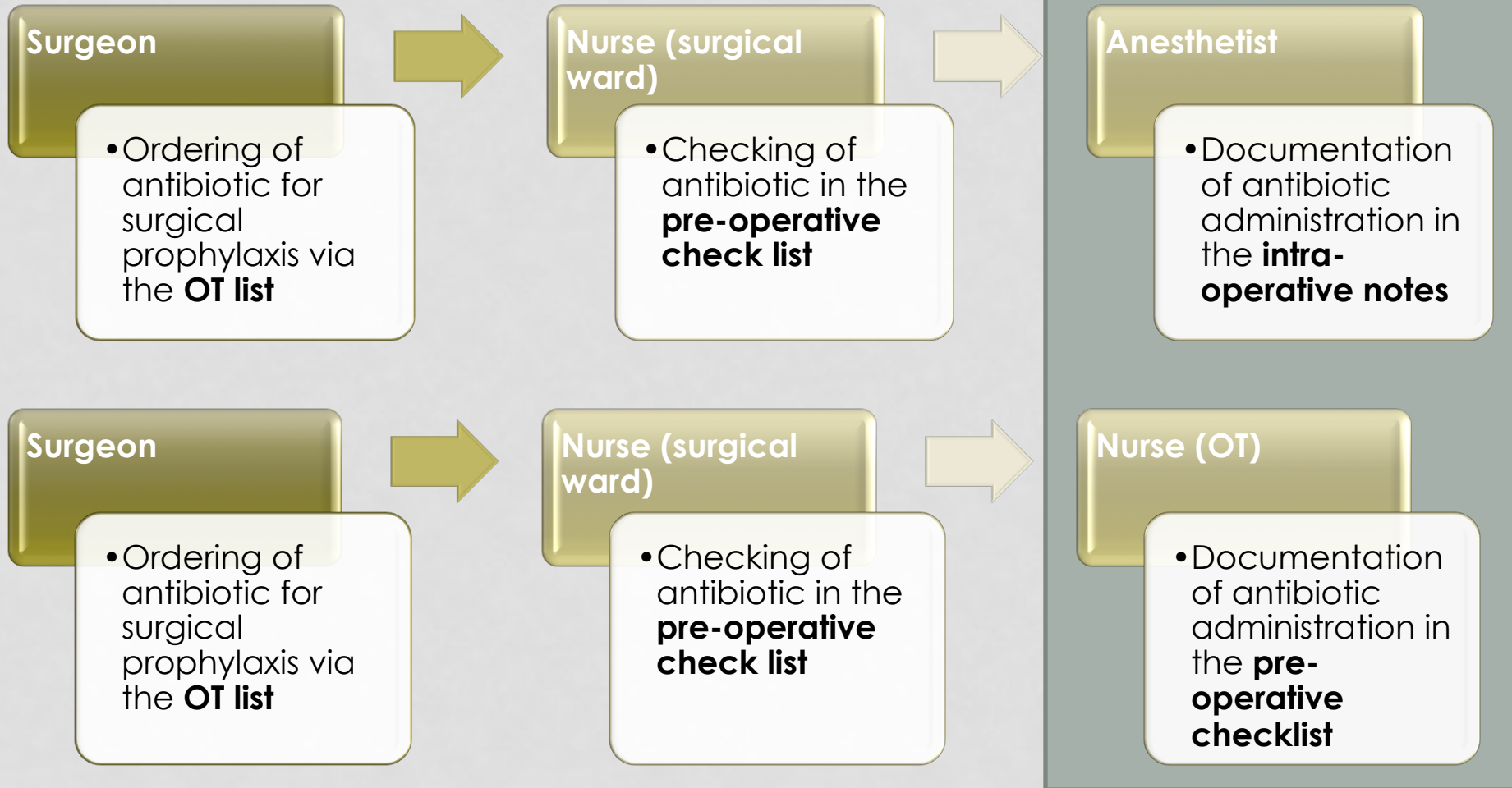
- To observe the following documents :





2017

SUGGESTION OF IMPROVEMENT



SAFE SURGERY, SAVES LIVES FORMS

OPERATING TEAM CHECKLIST

BEFORE INDUCTION OF ANAESTHESIA

SIGN IN

Checked patient's

- Identity
- Site
- Procedure
- Consent

Site marked Yes No NA

Checked GA machine

Pulse oximeter on patient and functioning

Checked patient's :

Allergy?
 No Yes

Airway / Aspiration risk?
 No Yes

Risk of > 500ml blood loss (adult) (>7 ml/kg in children)?
 No Yes

Adequate IV access?
 No Yes

Anticipated critical events

Surgeon reviews : Any special steps, estimated duration, possible excessive blood loss?

Anaesthesia team reviews : Any patient-specific concerns?

Nursing team reviews : Instrument sterility confirmed, implants / prosthesis available / critical equipment available and functioning?

DURING PROCEDURE

INTRA-OPERATIVE COMMUNICATION

Check-in

Periodic updates

Shout-out

Pre-closure disclosure

BEFORE PATIENT LEAVES OPERATING ROOM

SIGN OUT

Nurse verbally confirms with the team :

The final name of the procedure (With proper spelling)

Final count of instrument, sponges and needles is correct

How specimens are labelled (Including patient's name)

Whether there are any equipment problems to be addressed (Note in swab count form - incidents / equipment failure section)

Any special instructions from surgeon or anaesthesia professional during recovery and management of patient

Inform the relatives

ANTIBIOTIC NAME :

DOSE : TIME :

BEFORE SKIN INCISION (OR BEFORE INDUCTION OF ANAESTHESIA)

TIME OUT

"White board" written

Team members have introduced themselves by name and role

Surgeon, anaesthesia professional and nurse have verbally confirmed

- Patient
- Site
- Procedure
- Consent

Has antibiotic prophylaxis been given?
 Yes No Not applicable

Is essential imaging displayed?
 Not applicable Yes

Checklist co-ordinator :
(Name)

BEFORE SKIN INCISION (OR BEFORE INDUCTION OF ANAESTHESIA)

TIME OUT

"White board" written

Team members have introduced themselves by name and role

Surgeon, anaesthesia professional and nurse have verbally confirmed

- Patient
- Site
- Procedure
- Consent

Has antibiotic prophylaxis been given?
 Yes No Not applicable

Is essential imaging displayed?
 Not applicable Yes

ANTIBIOTIC NAME :

DOSE : TIME :

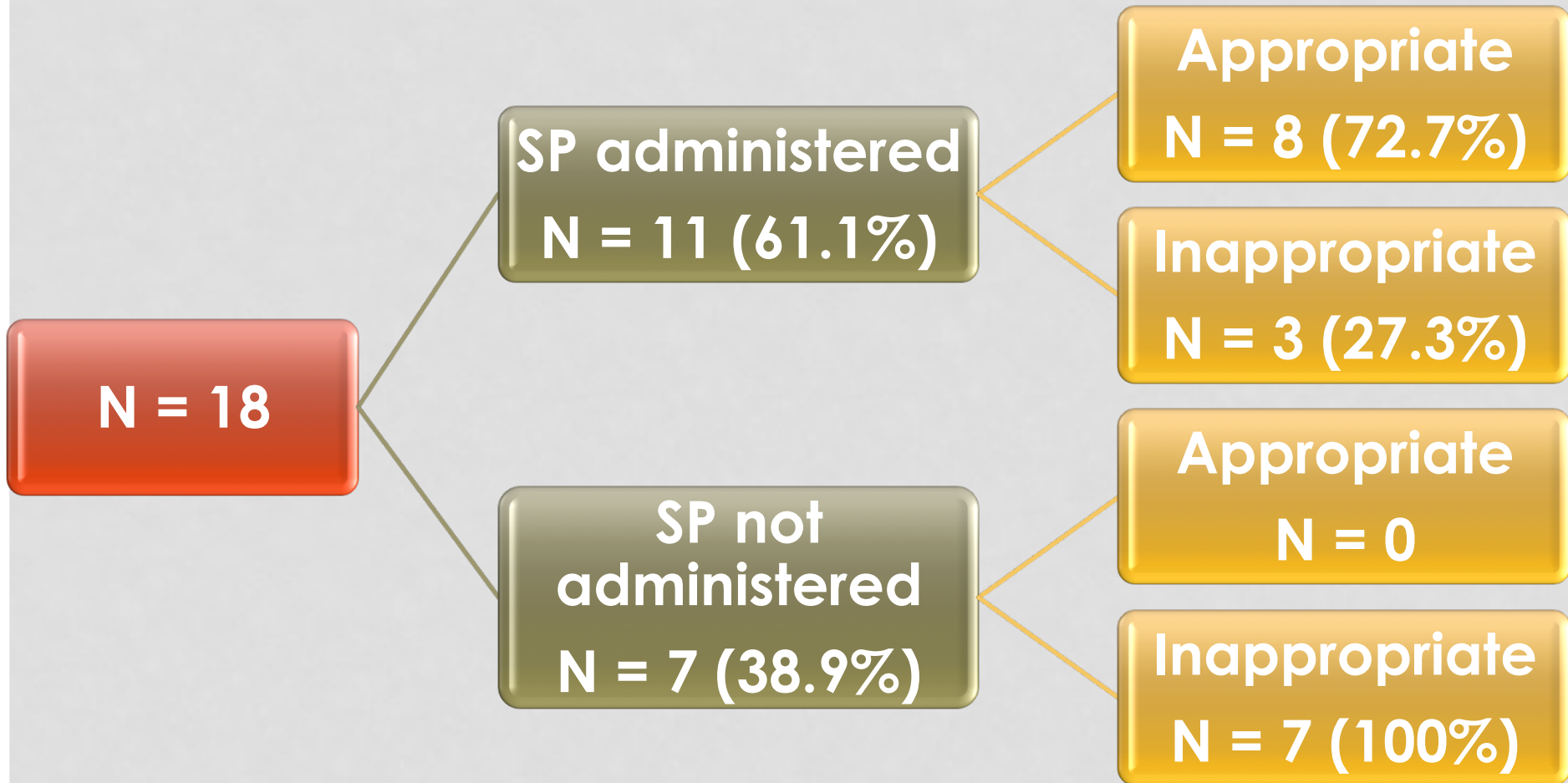
OBJECTIVE (2017)

- Demographic data - age, gender, race, LOS, discipline, type of surgery and classification of surgery.
- To describe administration time of surgical prophylaxis ab relative to incision time.
- To describe administration of repeated dose relative to duration of surgery.
- To describe inappropriate use of surgical prophylaxis:
 - antibiotic choice not following hospital guidelines
 - inadequate dose
 - inappropriate administration time
 - prolonged duration

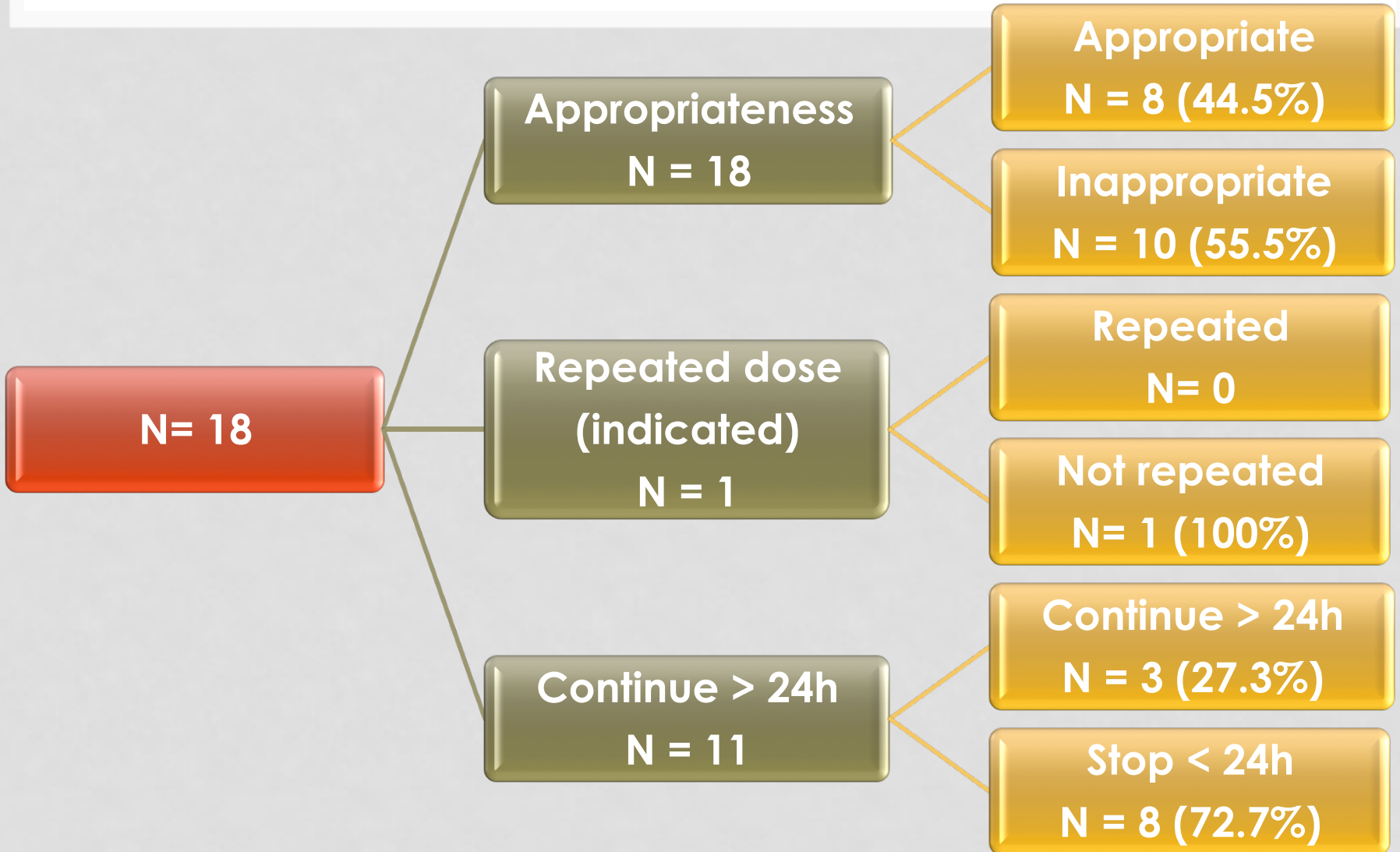
FORMS

PRELIMINARY FINDINGS

SUMMARY OF RESULTS



SUMMARY OF RESULTS



SUMMARY OF RESULTS

Inappropriateness of antibiotic use as surgical prophylaxis	N	%
Antibiotic not given	7	87.5
Dose given is different from guideline	0	
Antibiotic given different from guideline	0	
Inappropriate administration time	1	12.5
Additional antibiotic given as compared with guideline	0	
Antibiotic given (not indicated in guideline ie clean surgery)	0	
Total	8	

TIMING OF SP

		N (%)
Administration time to first incision	< 30 minutes	6 (54.5%)
	30 - 60 minutes	4 (36.4%)
	> 60 minutes	1 (9.1%)
	Total	11 (100%)

CONCLUSION



THANK YOU

WE ARE AMS TEAM MEMBER OF HSB

