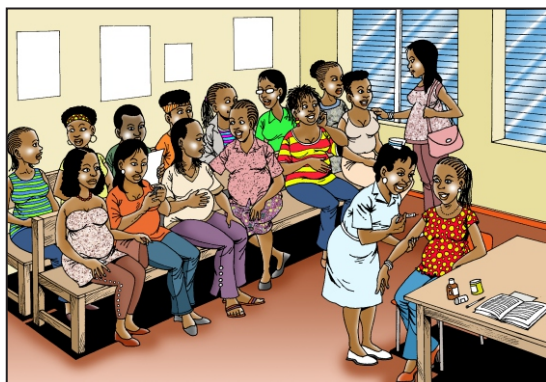




MINISTRY OF HEALTH



5-T.T. Schedule Handbook for health Care Providers



DIVISION OF VACCINES AND
IMMUNIZATION
2nd Edition

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Abbreviations

MNT -	Maternal & neo-natal tetanus
NNT -	Neo natal tetanus
FANC -	Focused Ante-Natal Care
CBAW	Child bearing age women
ICU -	Intensive Care Unit
PAB -	Protection at birth (<i>from tetanus</i>)
MNH -	Maternal Neonatal Health

INTRODUCTION TO HANDBOOK FOR TETANUS TOXOID VACCINATION SCHEDULES

This handbook has arisen out of a need to harmonize the practice of tetanus toxoid (T.T.) vaccine administration throughout the country.

The Ministry of Health—Division of Vaccines and Immunization (**DVI**) which is the major procurer of the vaccine, is often unable to interpret consumption data from vaccinating centers due to inconsistent documentation of doses administered to clients. Discrepancies in utilization of the vaccine have been found to be due to lack of clarity of the 5-T.T. schedule.

Most of this misunderstanding results from high staff turnover at vaccinating centres without proper updates, and because the antigen draws the least interest in routine immunization reporting. Tetanus toxoid has in effect become the most neglected antigen both in field administration and documentation; DVI's "forgotten antigen".

And yet it is important to ensure that all those at risk of being infected with tetanus are adequately protected. It is important for the Ministry of Health to know the exact requirement of tetanus toxoid vaccine around the country for planning/procurements purposes.

This handbook is intended to show how five appropriately spaced doses of tetanus toxoid vaccine can be used to provide up to twenty years of protection to those perceived to be at highest risk of contracting this terrible disease. It is presented in a simplified format for use as a desk-top reference by busy health Care Providers.

Finally it is very important that we all work together to eliminate tetanus from Kenya by ensuring that all persons at risk are properly immunized.

Thank you

Dr. S. K. Sharif, MBS, MBChB, M. Med, DISHTM, MSc
DIRECTOR, PUBLIC HEALTH AND SANITATION

Tetanus—the disease

Tetanus is a disease as old as mankind. It is known to affect all age groups and both sexes. In Kiswahili it is known as "pepo-punda" and is also named in many of the Kenyan languages.

Tetanus is caused by an anaerobic spore-forming bacterium known as *Clostridium tetani*. Infection occurs when tetanus spores enter the body through a contaminated wound. The spores germinate inside the body and release a powerful toxin. This toxin enters the blood stream and attacks the nervous system, irritating the motor neurons. The irritated nerves become hypersensitive and react to any stimulus with strong contractions of all skeletal muscles. Tetanus can appear anytime from 3 days to 3 weeks after exposure to the bacteria.

These periodic strong muscular contractions or spasms throw the body into an arch described as "opisthotonus". The facial muscle contractions pull the cheek muscles outwards giving the impression of a grimace or "risus sardonicus". Both these features are the hallmark of tetanus disease. Muscular spasms are provoked by a variety of stimulus such as bright or flickering light, sudden loud noise, simple touch etc.

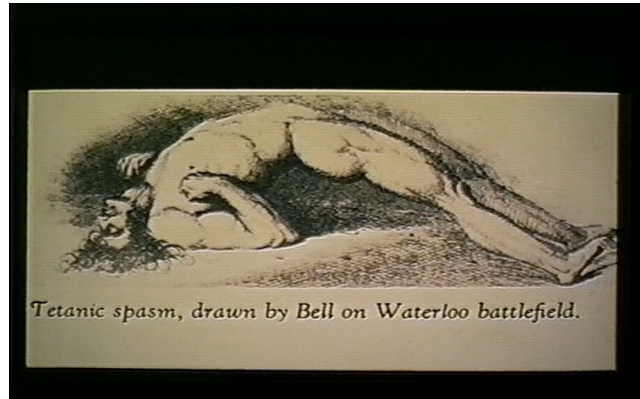
Treatment for tetanus is mainly supportive I.e. isolation of the patient to a quiet stress-free environment, minimizing the number of visitors, sedating the patient, and providing naso-gastric or parenteral feeding. However where possible, surgical toileting of the wound should be done together with the administration of suitable antibiotics & antisera to reduce the bacterial and toxin load. Severe cases may require I.C.U facilities especially where the spasms are so frequent or severe that they affect respiration. With all this hospital management recovery from tetanus can still take about two weeks and mortality is about 40% in Kenya.

Maternal or neo-natal tetanus occur at the time of delivery if the perinium or cord are cut with contaminated instruments or treated with contaminated material. Neo-natal tetanus usually sets in between the third to the fifth day after birth. Characteristically the baby is described to have been fine after delivery but suddenly stopped breastfeeding about two days later. This is followed by progressive lethargy, convulsions and death by the fifth to seventh day. Neo-natal tetanus mortality is 100% in the absence of I.C.U facilities. This is because the spasms are so exhausting to the neo-nate that it literally gives up breathing—therefore assisted respiration is vital for survival. Again the child is unable to accept any feeds because of the mouth spasms and therefore needs specialized feeding.

Prevention of tetanus is through the administration of a series of well spaced doses of the tetanus toxoid vaccine. Each dose from the second onwards confers an increasing duration of immunity. Vaccination against tetanus is really the only cost-effective management of this dreaded disease because even personal exposure to the disease does not confer any measurable immunity.

CHARACTERISTIC SIGNS OF TETANUS

Opisthotonus



Risus sardonicus



Lockjaw



Tetanus in animals (sheep)



ABOUT THE VACCINE

Tetanus toxoid vaccine was first produced in 1924. It is a relatively heat stable vaccine prepared by formalin treatment of the toxin produced by *Clostridium tetani* (mainly the Harvard strain). The vaccine is tested for purity and potency.

The most commonly used type of toxoid is the adsorbed one because the antitoxin response reaches higher titres which last longer. D.V.I. procures only adsorbed tetanus toxoid preparations.

Tetanus toxoid is available as a single antigen preparation such as the one used for the 5-T.T. schedule and also in combination preparations with diphtheria, pertussis, HepB & HiB (pentavalent vaccine) for paediatric use.

Please note that the **concentration of toxoid** in the single dose 'adult' preparations is **similar** to that in the paediatric preparations.

How to store the vaccine:

- Tetanus toxoid should be stored continuously at $+2^{\circ}\text{C}$ to $+8^{\circ}\text{C}$
- Tetanus toxoid should never be frozen as this reduces its potency
- Tetanus toxoid vaccine that has been exposed to freezing temperatures should never be used

How to administer the vaccine:

- 0.5ml of the liquid vaccine is drawn into an AD syringe
- Through intra-muscular injection into the **left** upper - arm into the deltoid muscle



Documentation tools

The main documentation tools are as follows

- Mother-child booklet
- The immunization tally sheet
- The Permanent T. T. register
- The Ante-Natal register
- The Post-natal Register
- The Injection room register
- The immunization summary sheet

The 5 -T.T. Card

This is the client's personal record of receiving the vaccine.

Clients should be sensitized to understand the return dates and the importance of completing the schedule.

Adverse events following immunization:

Tetanus toxoid is a relatively safe vaccine which rarely provokes severe reactions. The main local reactions are pain, swelling and redness at the injection site but these are usually self-limited & do not require treatment. Rarely peripheral neuropathy (Guillain Barré Syndrome) has been reported after T.T. administration but is more associated with large numbers of doses of T.T. Should a person develop a severe reaction after being injected with tetanus toxoid, then the next dose must be deferred until a qualified medical opinion is obtained.

Opportunities for the 5—Tetanus Toxoid vaccination schedule

The aim of the 5—T.T. schedule is to provide about 20 years of protection against this killer disease for those at risk & especially for women of child bearing age and their unborn babies.

There are **three main** opportunities for the administration of the 5-tetanus toxoid schedule (5-T.T.) promoted by the Kenya Expanded Programme on Immunization.

1

5-T.T. for F.A.N.C

(5-T.T. Schedule for Ante-natal clients)

- This is given as part of Focused Ante-natal Care - FANC
- Vaccination against tetanus is given during pregnancy episodes
- Doses are documented and when a woman has received five doses (usually by the fourth pregnancy) no further doses should be given in subsequent pregnancies.
After receiving 5 well spaced doses of tetanus toxoid vaccine the woman would have developed immunity for approximately 20 years, and in most cases this is long enough to cover the rest of her reproductive life

2

5-T.T. for CBAW

(5-T.T. Schedule for girls & women of childbearing age)

- Here tetanus toxoid vaccination is given to females aged between 15—49 years **irrespective** of their pregnancy status or reproductive health goals.
- The lower and upper age limits can be varied according to local experience of childbearing patterns.
- This schedule builds up the immunity of the girl or woman for the assumed eventuality of pregnancy & childbirth for herself and her future babies.

3

5-T.T. for TRAUMA & OCCUPATIONAL PROPHYLAXIS

- This schedule is usually initiated in the event of trauma and the tetanus toxoid doses should be given in the prescribed intervals until all 5 doses have been given.
- After five doses, recipients would have acquired immunity against tetanus for 20 years.

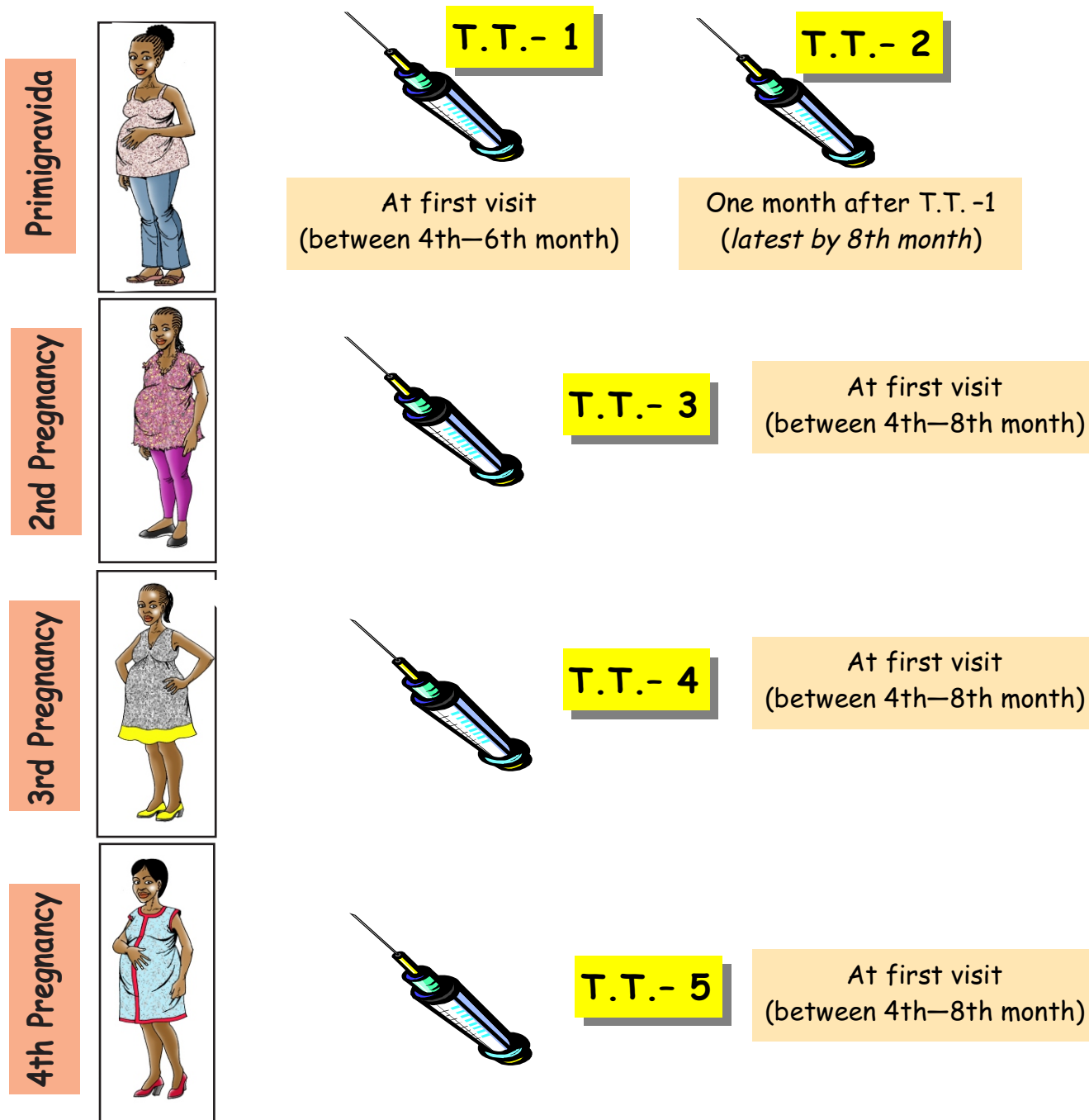
5—T.T. Schedule during Focused Ante- -natal Care visits



5 —T.T. SCHEDULE DURING FOCUSSED ANTE—NATAL CARE (F.A.N.C)

Please note that this schedule can only work if:

Pregnant women attend ante-natal clinics early enough in the pregnancy,
Pregnant women make multiple visits to the ante-natal clinic
Ante-natal clinics provide T.T. vaccination



Subsequent pregnancies do not require T.T. vaccination

5—T.T. Schedule during Focused Ante-Natal Care

Requirements *in every ANC room*

1. Vaccine carrier with conditioned ice packs
2. Adequate quantities of Tetanus Toxoid vaccine & AD syringes
3. Safety box
4. T.T. Permanent Register
5. Adequate supply of T.T. cards
6. Vaccination tally sheet
7. Mother child booklets

Procedure:

1. Make sure that tetanus toxoid vaccine is available *in* the examination room
2. Screen *all* antenatal clients during *every visit* for history of vaccination with Tetanus Toxoid
3. Ensure that clients who need to be vaccinated are vaccinated *before* they leave the ANC room
4. **Correctly document** the dose given on the T.T. card, in the Register the tally sheet and mother child booklet
5. **Correctly advise** on when the next dose is due
6. **Confirm** that the client has understood the date for the next ANC visit & the next T.T. dose
7. **Emphasize** the importance of looking after *both* her mother child booklet & her T.T. card

GRAVIDA	Tetanus toxoid vaccination schedule	Expected maternal outcome	Expected outcome for neonate
First pregnancy	1st TT dose <i>(given from the fourth to sixth month i.e. 2nd trimester)</i> 2nd TT dose given one month after the 1 st dose <i>(between the fifth & eighth month)</i>	Works as an immunological primer <i>but does not confer protection against maternal tetanus at delivery.</i> Confers protection from maternal tetanus at delivery & for about 1 – 3 years from tetanus in general <i>however approx. 10% may respond poorly to 2nd dose</i>	<i>No protection from tetanus at birth!</i> Confers protection at birth (PAB) for ≥90% of neonates due to adequate titres of maternal antibodies
Second pregnancy	3rd TT dose <i>(given anytime between the forth & eighth months)</i>	Immunity boosted for 5 years	PAB ≈100% from neonatal tetanus
Third Pregnancy	4th TT dose <i>(given anytime between the fourth & eighth month)</i>	Immunity boosted for 10 years	PAB for neonate
Fourth pregnancy	5th TT & last dose <i>(given anytime between the fourth & eighth month)</i>	Immunity boosted for 20 years	PAB for neonate
Subsequent pregnancies	No more TT doses	Immunity adequate for rest of parous life	Adequate. PAB for neonate

Key practices:

Screen → vaccinate *in* the ANC room → document on her card & in the register → give return date → commend her

Additional emphasis during Focused Ante-Natal Care

- Pregnant women should attend at least 4 ante-natal visits
- Pregnant women should be delivered by skilled birth attendant at a health care facility
- Pregnant women should be delivered in an appropriately equipped facility

NOTE WELL

Health facilities offering delivery services should provide either:-

Basic Emergency Obstetric Care :- B.E.O.C

OR

Comprehensive Emergency Obstetric & neonatal Care- C.E.O.C

MISSSED OPPORTUNITIES OF ANTE-NATAL VACCINATION WITH TETANUS TOXOID

Reasons for not receiving T.T. vaccine during ante-natal clinics:

- Some women do not attend ante-natal care clinics.
- Others attend ANC clinics which do not offer vaccination
- Others present themselves for ante-natal care when they are in their ninth month of pregnancy
- Some girls & women present at health facilities in labour
- Other women only visit health facilities to have their baby vaccinated or when they are sick

Requirements for handling missed opportunities
The right attitude & adequate logistics in the right place!

WHEN & WHERE TO LOOK FOR MISSED OPPORTUNITIES

1. Any mother whose baby has developed neo-natal tetanus must be vaccinated immediately !!

2. During Child Welfare & FP Clinics

1. Screen all women bringing their babies for vaccination for their own T.T. vaccination status.
2. Vaccinate all women who are not up-to-date with their T.T. doses **before** you vaccinate her baby.
3. Document the dose issue her with a T.T. card advise her on completing her doses.

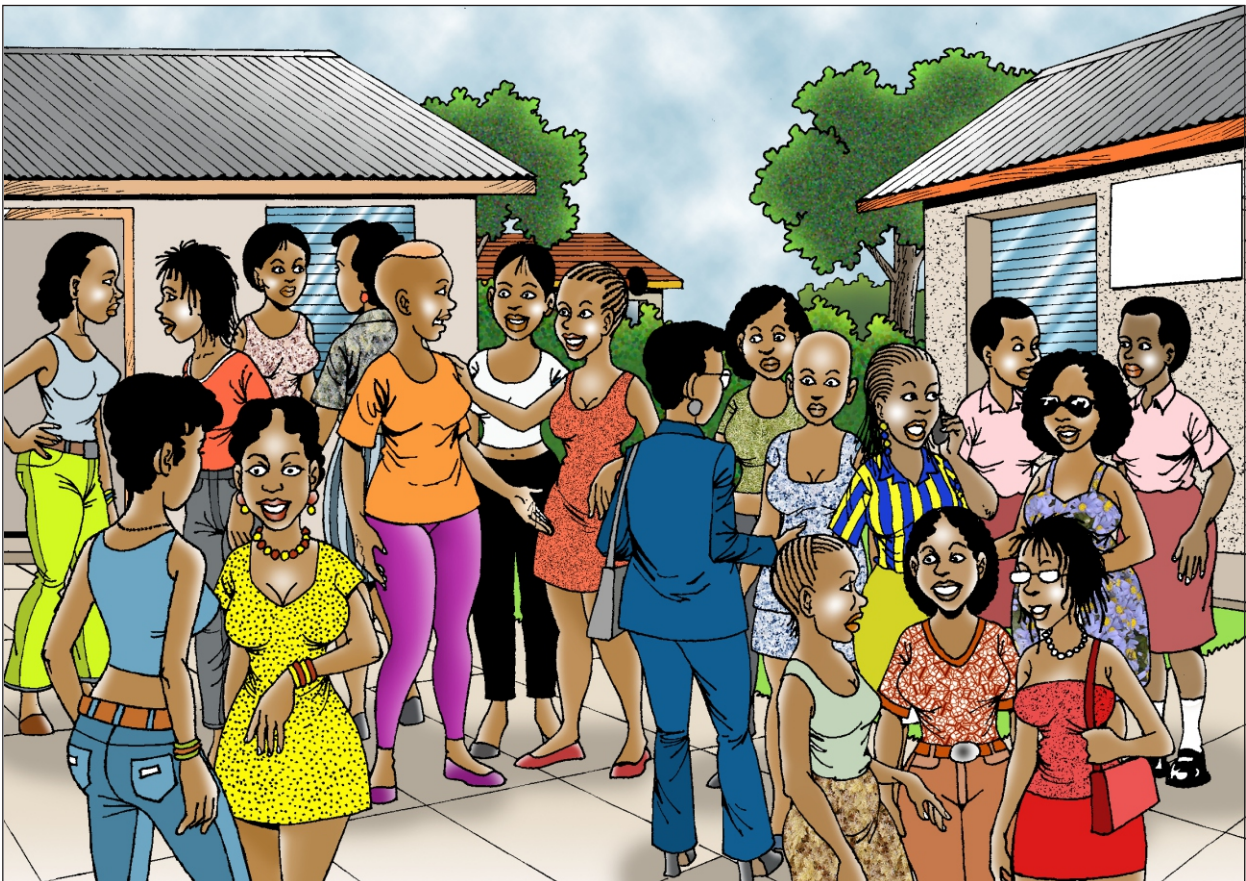
3. During delivery & postpartum period

1. Screen ***all*** women in labour for history of vaccination with Tetanus Toxoid
2. Make it a practice to ask for T.T. vaccination status as you prepare to give I.M. oxytocin 10IU
3. Ensure that clients who need to be vaccinated are vaccinated ***before*** they leave the delivery room
4. ***Correctly document*** the dose given on the T.T. card, in the register and on a tally sheet
5. ***Correctly advise*** on when the next dose is due
6. ***Confirm*** that the client has understood ***the date & the need*** for the next T.T. dose
7. ***Emphasize*** the importance of caring for her T.T. card
8. ***Commend her*** for coming for an institutional delivery

4. When seeking treatment for ailments

1. Screen all girls & women aged 14–49 years for history of T.T. vaccination
2. Ensure that all who need to be vaccinated are referred to the injection room and vaccinated.
3. Document the dose issue her with a T.T. card advise her on completing her doses

5—T.T. Schedule for girls & women of child-bearing age (15 -49 years)



5—T.T. Schedule for girls & women of childbearing age (CBAW)

N.B: Only in Coast Province, Busia, Kisumu & Rachuonyo districts

Requirements in every immunizing centre:

1. Vaccine carrier with conditioned ice packs, in injection room & in the child-health clinic
2. Adequate doses of Tetanus Toxoid vaccine & AD syringes
3. Safety box in the injection room & in the child health clinic
4. T.T. Permanent register in the ANC room
5. T.T. cards in the injection room & in the child health clinic
6. Tally sheets in the injection room & in the child health clinic
7. Mother child booklet

Procedure:

1. Make sure that tetanus toxoid vaccine is available **in the injection room**
2. **Screen** all girls and women (aged 14–49 years) visiting the facility for treatment or other services, for history of vaccination with tetanus toxoid.
3. Ensure that all clients who need to be vaccinated are referred to the injection room and vaccinated.
4. **Correctly document** the dose given on the T.T. card, in the Register Mother child booklet and the tally sheet.
5. **Correctly advise** on when the next dose is due.
6. **Confirm** that the client has understood the date for the next T.T. dose.
7. **Emphasize** the importance of caring for her T.T. card.
8. **Encourage her** to complete all five doses for 20 years protection against tetanus.
9. **Commend her every time** she returns for subsequent doses & when she completes

all five doses.

Dosing schedule	Administration schedule	Duration of immunity conferred	Benefits for
1 st TT dose	At first contact	Nil	Primes woman's system
2 nd TT dose	One month after 1 st TT	1 -3 years	CBAW + PAB for neonate
3 rd TT dose	Six months after 2 nd TT	5 years	CBAW + PAB for neonate
4 th TT dose	One year after 3 rd TT	10 years	CBAW + PAB for neonate
5 th TT dose	One year after 4 th TT	20 years	CBAW + PAB for neonate

Key practices:

Screen • vaccinate **in the injection room** • document on her card & in the register • give return date • commend her

ADDITIONAL NOTES ON SCHEDULE FOR CBAW

Definition of *CBAW* : Generally refers to females from menarche to menopause but is usually described in terms of specific years *i.e. females 15 years to 49 years*.

However the age range may be altered in relation to local conception and childbearing dynamics/experiences

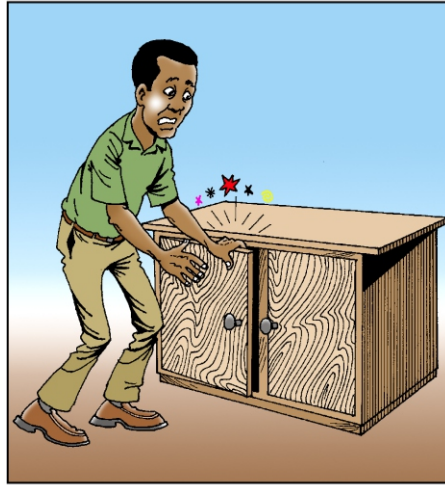
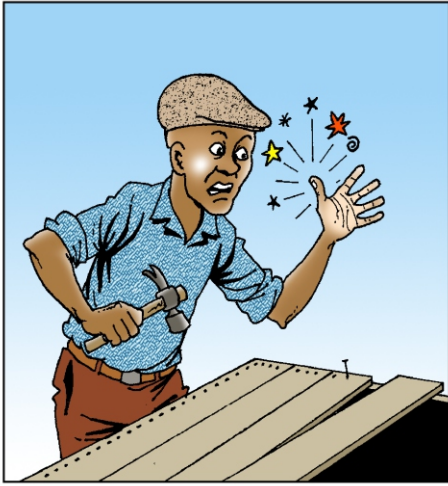
The schedule for *CBAW* aims to provide:

- A blanket protection against future maternal tetanus for girls/women of child bearing age irrespective of their reproductive health goals

(It is assumed that the majority of *CBAW* (in Africa) will be or are exposed to the risk of tetanus during deliveries, or during spontaneous/induced abortions due to limited access to quality delivery services.)

- Ensured protection at birth (*PAB*) from tetanus to all neonates (& their mothers) and therefore reduce the risk of the baby dying from a preventable disease before the first month of life





5—T.T. Schedule for trauma and occupational prophylaxis

5-T.T. for TRAUMA & OCCUPATIONAL PROPHYLAXIS

The 5-T.T. schedule should be used for all trauma victims (male or female) and to people whose professions put them at frequent exposure to the risk of tetanus.

Post traumatic vaccination with tetanus toxoid should be given to all sexes and all ages following a contaminated wound.

Prophylactic vaccination with tetanus toxoid should be given to all persons engaged in occupations of known high risk of trauma (e.g. farm workers, soldiers etc).

Requirements at every immunizing facility

1. Vaccine carrier with ice packs ***in the injection room***
2. Adequate quantities of Tetanus Toxoid vaccine & AD syringes
3. Safety box in the injection room
4. T.T. Permanent Register
5. Adequate supply of T.T. cards
6. Vaccination tally sheet

Procedure:

1. Make sure that tetanus toxoid vaccine is available ***in the injection room***
2. Ensure that all clients who need to be vaccinated are referred to the injection room and vaccinated.
3. ***Correctly document*** the dose given on the T.T. card, in the Register and the tally sheet.
4. ***Correctly advise*** on when the next dose is due.
5. ***Confirm*** that the client has understood the date & the need for the next T.T. dose.
6. ***Emphasize*** the importance of caring for the T.T. card.
7. ***Encourage client*** to complete all five doses for 20 years protection against tetanus.
8. ***Commend client every time*** they return for subsequent doses & when they complete all five doses.

	Administration schedule	Duration of immunity conferred
1 st T.T. dose	At first contact (or at least within seven days of the injury)	<i>Nil</i> - it primes the immune system (anti-tetanus serum may be added)
2 nd T.T. dose	One month after 1 st T.T.	1 - 3 years protection
3 rd T.T. dose	Six months after 2 nd T.T.	5 years protection
4 th T.T. dose	One year after 3 rd T.T.	10 years protection
5 th T.T. dose	One year after 4 th T.T.	20 years protection

Key practices:

Vaccinate ***in the injection room*** • document on T.T. card, on the tally sheet & in the register • give return date • commend client

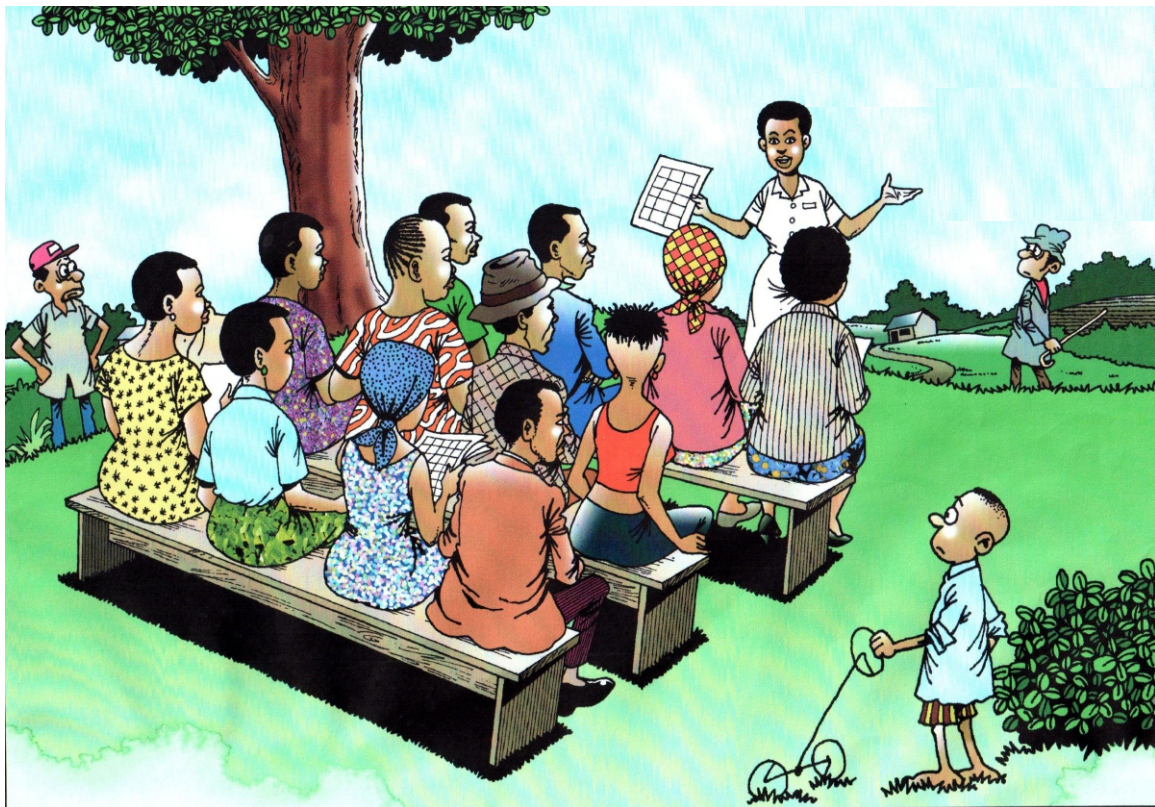
INCREASING T.T. COVERAGE FOR INCREASED PROTECTION AT BIRTH (PAB) FOR ALL NEONATES

Causes of low 5—T.T. coverage

- Misunderstanding of the 5—T.T. schedule
- Poor documentation of doses given (including incorrect tallying)
- Unknown target populations — i.e. denominator
- Inability to forecast (calculate) correct requirements of vaccine & injection equipment leading to stock-outs.
- Failure to monitor stock levels again leading to unnecessary stock outs
- Refusing to vaccinate because it is not a "vaccination day" therefore creating "missed opportunities"
- Failure to review the Permanent register regularly to identify drop-outs
- Failure to follow-up drop outs

Prerequisites for increasing T.T. coverage

- Know your catchment population
- Calculate your target population (i.e. the denominator) depending on the 5—T.T. schedule in use in your district
- Order enough supplies of T.T. vaccine & AD syringes
- Accurately tally each dose of T.T. given (i.e. *T.T.-1, T.T.-2, T.T.-3 etc.*)
- Vaccinating whenever an opportunity arises so as to reduce "missed opportunities"



Engaging communities in improving T.T. coverage & protection at birth (P.A.B) for neonates

- Do not assume that the community knows about the benefits of Ante-Natal Care
- Do not assume that the community knows about the benefits of T.T. vaccination
- Use any & every social opportunity to promote the use of ANC clinics
- Use any & every social opportunity to promote the benefits of the 5-T.T. schedule
- Encourage the community to demand for complete 5—T.T. vaccination
- Identify community advocates (focal points) for drop-out tracing
- Provide frequent feedback to the community on the T.T. coverage levels
- Commend the community if they are using ANC services & have good 5 —T.T. coverage

Surveillance for tetanus disease incidence

- Neo-natal tetanus
- Maternal tetanus
- Post-traumatic
tetanus

SURVEILLANCE FOR NEO-NATAL TETANUS

Although tetanus can occur in any age group, newborn children (neo-nates) are most likely to die if infected. Therefore special attention is given to this age group. However the Disease Outbreak Management Unit (DOMU) of the Ministry of Health should be notified of any case of suspected tetanus be it in a man, woman or older child.

Occurrence of neo-natal tetanus implies that the mother had not received any (or inadequate) doses of tetanus toxoid **and that** the delivery was contaminated.

The incidence of neo-natal tetanus also serves as a very sensitive indicator of the level of environmental contamination with tetanus spores.

All clinicians and Disease Surveillance Coordinators should be careful to distinguish between neo-natal sepsis and neo-natal tetanus by referring to the standard case definition of neo-natal tetanus.

Diagnosis of tetanus is made on clinical presentation only as facilities for laboratory confirmation are not available.

STANDARD CASE DEFINITION OF NEO-NATAL TETANUS

History of normal suck and cry for the first 2 days of life
And
History of onset of illness between 3rd and 28 days of age
and
History of inability to suck followed by stiffness AND/OR
Convulsions
and OFTEN DEATH

RESPONSE TO A CASE OF NEONATAL TETANUS

1. Fill out the Integrated Disease Surveillance & Response (IDSR) form.
2. Determine the T.T. vaccination status of the mother
3. ***Vaccinate the mother immediately with TT irrespective of her vaccination status !!***
4. Forward the IDSR form to KEPI
5. Determine who conducted the delivery & sensitize them on clean delivery practice.
6. Conduct community sensitization on this occurrence & find out if there are other cases in the community. Identify such unvaccinated women/mothers and vaccinate them.
7. Engage the community vaccination focal point to mobilize all pregnant women from the same locality to come for T.T. vaccination.

**Immune response
following tetanus
toxoid vaccination**

DEVELOPMENT OF IMMUNITY FOLLOWING VACCINATION WITH TETANUS TOXOID

The degree & duration of immunity increases with the number of TT doses given

- a. One dose provides no protection, it just primes the immune system to respond to further doses.
 - b. The second dose usually induces serum antitoxin level response in excess of the minimum protective level of 0.01 IU/ml in $\geq 90\%$ of recipients (*Average 0.03 IU/ml in Papua N.G.*)
 - c. Babies born to "poor responders" (primigravidae) are at risk of tetanus and therefore the need for a booster (3rd) dose in the subsequent pregnancy. NB: Kenya does not assess the serostatus of clients prior to vaccination.
 - d. The 3rd dose induces plentiful antitoxin production of between 1-10 IU/ml and the number of non-responders is negligible. Protection lasts for at least 5 years.
 - e. The titres of maternal antibodies (IgG) found in the neonate (cord blood) **directly correlates** with the number of maternal doses of TT received. (i.e: mother's protection is proportional to neonate's PAB.)
 - f. The neonate's passively acquired immunity rapidly wanes by 2 months of age & hence the need for DPT vaccination at 6 weeks of age.
2. Without appropriate booster doses, immunity begins to wane with titres falling to the "threshold" protective level of 0.01 IU/ml.

Special note

When using the 5—T.T. schedule during F.A.N.C., the interval between pregnancies is not relevant (unless ≥ 10 years between the 1st & 2nd pregnancies) because the body's immunological memory responds well to booster doses given even beyond the recommended time for boosters.

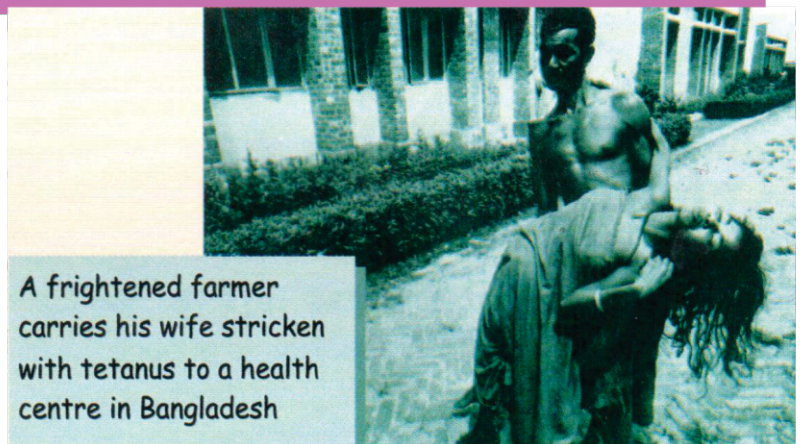
*Only when the interval between the 1st and 2nd pregnancy is **greater than** (or equal to) 10yrs, should the schedule be re-started from T.T.—1.*

(This rule does not apply to intervals greater than 10yrs between the 2nd—3rd pregnancies or the 3rd—4th pregnancies. Meaning that a long delay between T.T.2 & T.T. 3 is more risky than a long delay between T.T.3 & T.T4 or between T.T.4 & T.T.5)

Additional information on tetanus

- Facts &
- Frequently asked questions

FACT number one - Maternal tetanus DOES exist!!



Differential diagnosis for maternal tetanus are

- Cerebral malaria
- Eclampsia
- Meningitis
- Epilepsy

Any "convulsions" occurring in a woman who has delivered three days to six weeks prior should be investigated through detailed history of the circumstances of the delivery and a thorough physical examination.

Maternal tetanus must be suspected until proved otherwise & anti-tetanus serum given

Addressing the myths

FACT: Tetanus can be prevented with a safe and effective vaccine.

FACT: You cannot get tetanus from the vaccine.

FACT: Tetanus is caused by a toxin produced by a type of bacteria (*Clostridium tetani*) found worldwide in soil, dust and manure.

FACT: Tetanus is not transmitted from one person to another.

FACT: Almost all reported cases of tetanus occur in persons who have either never been vaccinated, or those who completed a primary series but have not had a booster vaccination in the past 10 years.

FACT: Approximately 100% of reported cases of neo-natal tetanus are fatal in Kenya because of limited access to intensive care facilities (ICUs).

FACT: Some adult cases of tetanus are able to survive but they often have to spend several painful weeks in the hospital under intensive care. Deaths are more likely to occur in persons 60 years of age and older.

FACT: Recovery from tetanus illness **may not result in immunity**. Another infection could occur unless immunization is provided soon after the person's condition has stabilized.

FACT: Clean and safe deliveries lead to a reduction in both maternal and neo-natal tetanus prevalence.

FACT: Vaccinating a pregnant woman with tetanus toxoid **does not harm** the unborn child, instead it protects both the woman and her unborn child from tetanus.

FACT: Tetanus toxoid vaccine **is not** a contraceptive.

Frequently asked questions

Question 1: If the second pregnancy is more than 6 years after the first pregnancy should I give the woman two doses of T.T.?

Answers:

a.) If you *are sure* that this woman *has never* received *even one* dose of T.T. during her *first* pregnancy then she should receive two T.T. doses one month apart.

b.) If this woman received two doses of T.T. during her *first* pregnancy then she should just receive her 3rd T.T. dose.

c.) However if she had *only* received *one dose* during her first pregnancy then give her another dose during this pregnancy and count it as T.T.-2.

In both cases **do not** give her two doses during this second pregnancy as the single booster dose will stimulate enough antibodies to provide adequate protection-at-birth (P.A.B) for her unborn child.

Frequently asked questions cont.

Question 2: If a child who had completed their 3-DPT-Hep/HIB doses has an accident at 6 years, should they receive a booster dose?

Answer: This is the correct opportunity to start the **5-T.T. schedule for trauma** because the childhood antibodies have begun to wear off. Remember that 3 doses of T.T. provide immunity for only 5 years. If there is card-proof of the 3DPT doses then just give T.T.-4 followed by T.T.5 one year later. Issue a 5T.T. card & fill date of T.T.4

Question 3: If a woman has received 4 T.T. doses in three pregnancies but has now had a BTL because she does not want to have more children, should she be asked to come back for her 5th T.T. dose?

Answer: Yes she should be **encouraged** to have her 5th T.T. dose one year after the 4th T.T. dose as it will boost her immunity from tetanus from other causes for 20 years (e.g. cut wounds & other trauma).

*Remember that tetanus bacteria are **everywhere in our environment**, both indoors and out, and can enter the body through the smallest injuries. This includes cuts, scrapes, even splinters and other injuries that occur even at home.*

Documentation tools

Please note that EVERY dose of tetanus toxoid given under any schedule must be recorded properly on the following documentation tools:

- Tally sheet
- Individuals T.T. card

Health workers must clearly show which dose has been given (i.e. 1st or 2nd or 3rd etc.) on EACH of the above documentation tools.

Health workers must clearly summarize the total number of T.T. doses administered daily, weekly & monthly on the appropriate forms.

e.g.

- | | |
|---------------|-----------|
| • T.T.-1 = 17 | T.T.-4= 4 |
| • T.T.-2 = 12 | T.T.-5= 9 |
| T.T.-3 = 24 | |

ALL doses must be categorized and should not be casually referred to as boosters!!

Health workers should determine the following drop-out rates monthly:

- T.T.-1 to T.T.-2 (*as an indicator of **accessibility***) and
- T.T.-1 to T.T.-3 (*as an indication of **utilization***)

T.T.VACCINE



Tetanus toxoid vaccination card (T.T. Card)



Tally sheet

MINISTRY OF HEALTH

MOH 702

DIVISION OF VACCINATION AND IMMUNIZATION (DVI) IMMUNIZATION AND VITAMIN A TALLY SHEET

Name of Health Facility _____ Constituency _____ District _____ Province/County _____ Month _____ Year _____

Tally all the Vaccine and Vitamin A as you Administer (The Tally Sheet should be available in all immunizing health facilities)

MOH 702

MOH 702																						
Antigen	Age	Days of the month /Name of facilities																				Total
BCG	Under 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
OPV(Birth dose)	Within 2 weeks	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
OPV1	Under 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	Above 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
OPV2	Under 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	Above 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
OPV3	Under 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	Above 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
DPT+HIB+HEPB 1	Under 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	Above 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
DPT+HIB+HEPB 2	Under 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	Above 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
DPT+HIB+HEPB 3	Under 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	Above 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
Pneumococcal 1	Under 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	Above 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
Pneumococcal 2	Under 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	Above 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
Pneumococcal 3	Under 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	Above 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
Measles 1	Under Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	Above 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
Measles 2	18- 24 Months	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	Above 24	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
Yellow fever	Under 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	Above 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
Fully Immunized Child (FIC)	Under 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	Above 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
Tetanus Toxoid for pregnant women	1st Dose	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	2nd Dose	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	TT Plus (Boosters)	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
Adverse Events Following	Under 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
	Above 1 Year	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	

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CREDITS

Written and compiled by Dr. Tatu Kamau—Head DVI

Edited by:

Members of the Maternal & Neo-natal Tetanus Elimination Technical Working group

KEPI MNTE Focal Point — Grace Saita

Dr. Josephine Kibaru—Head Div. Of Reproductive Health

Dr. Marsden Solomon—Div. of Reproductive Health

Alice Mwangangi—Div. of Reproductive Health

Fatuma Dubow—Div. Of Reproductive Health

Eunice Masamo—Div. Of Nursing

Frida Omwangale—Div. Of Environmental Health

Dorothy Katiech—Kenya Medical Training College

Matthew Kiptugor—Kenya Medical Training College

John Matoke—National Public Health Laboratories

Lydia Kirika—K.E.P.I

Timothy Mbaka—K.E.P.I

Salah Aden—K.E.P.I

Samson Thuo—KEPI

WHO (Kenya) EPI Focal Point—Dr. Mohammed Duale

WHO Eastern Africa ICP Epidemiologist—Dr. Akpaka Kalu

UNICEF (Kenya) EPI Focal Point— Dr. Alfred Kenyanito

UNICEF EPI Programme Officer—Josephine Odanga

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Dr. Tatu Kamau—Head DVI

Pamela Ochieng — Training Coordinator DVI

Alice Mwangangi—Div. of Reproductive Health

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Nairobi.

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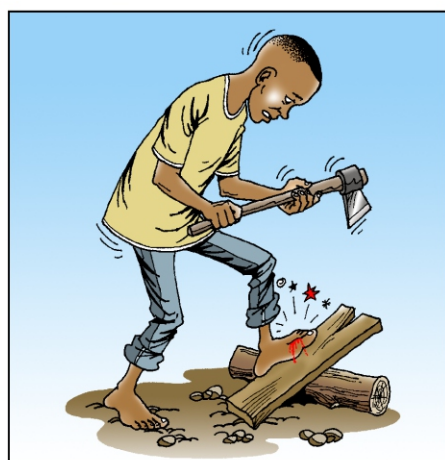
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1st Pregnancy
T.T. -1 & T.T. -2

2nd Pregnancy
T.T. -3

3rd Pregnancy
T.T. -4

4th Pregnancy
T.T. -5



5 - T.T. Schedule Handbook for Health Workers