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Ministry of Health and Family Welfare, Government of India

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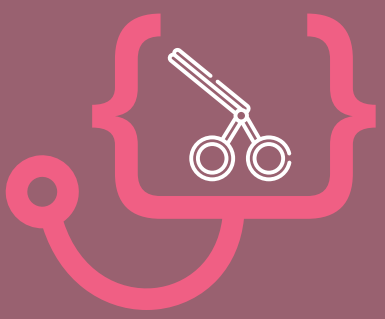

2019 Edition, Vol. I

STANDARD TREATMENT WORKFLOWS

of India

PARTNERS

national health authority

World Health Organization

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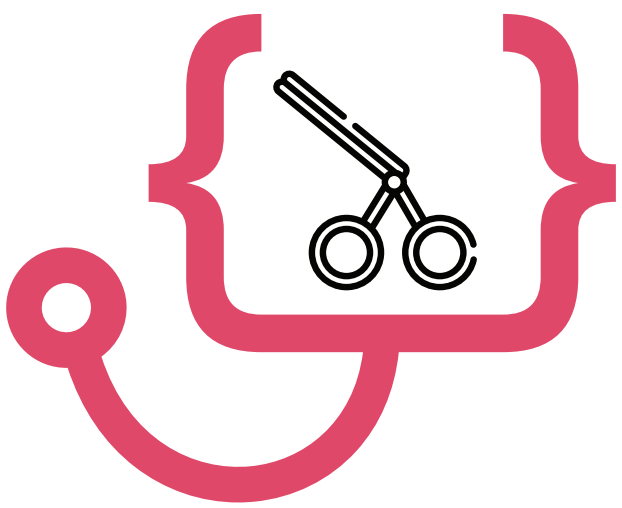

STANDARD TREATMENT WORKFLOWS of India

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These STWs have been prepared by national experts of India with feasibility considerations for various levels of healthcare system in the country. These broad guidelines are advisory, and are based on expert opinions and available scientific evidence. There may be variations in the management of an individual patient based on his/her specific condition, as decided by the treating physician. There will be no indemnity for direct or indirect consequences. Kindly visit our web portal (**stw.icmr.org.in**) for more information.

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INTRODUCTION

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GOAL

To empower the primary, secondary and tertiary care physicians/surgeons towards achieving the overall goal of Universal Health Coverage with disease management protocols and pre-defined referral mechanisms by decoding complex guidelines

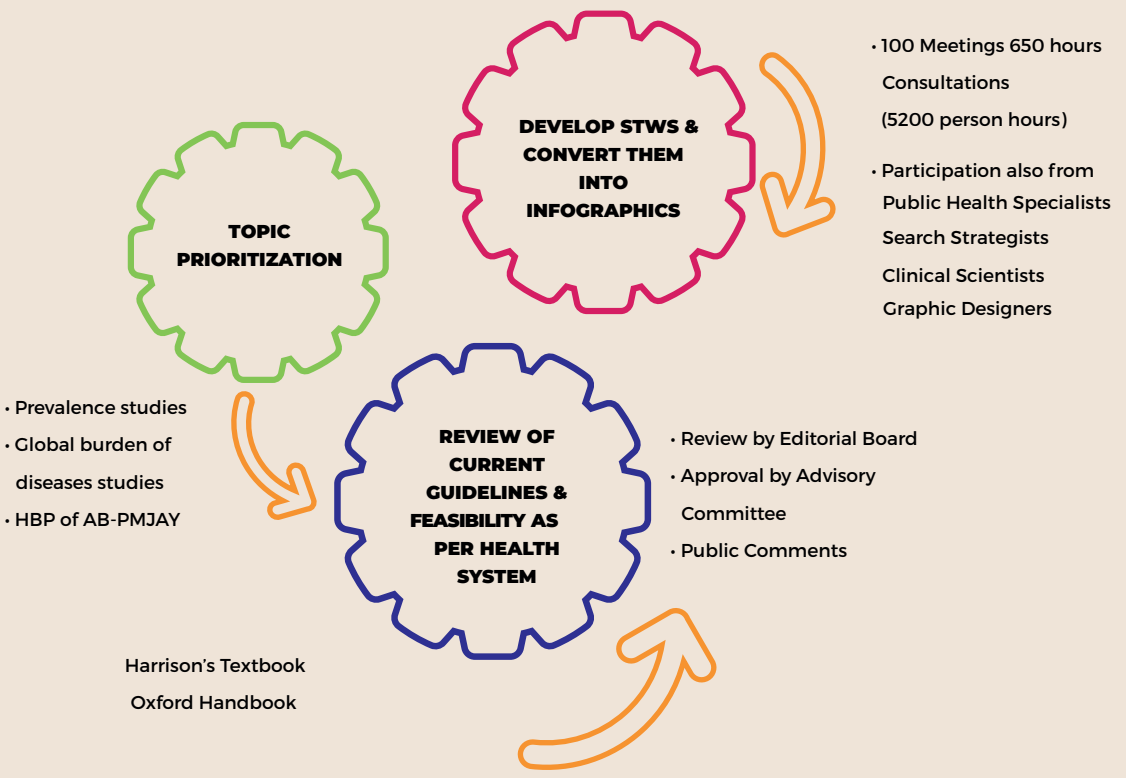
OBJECTIVES

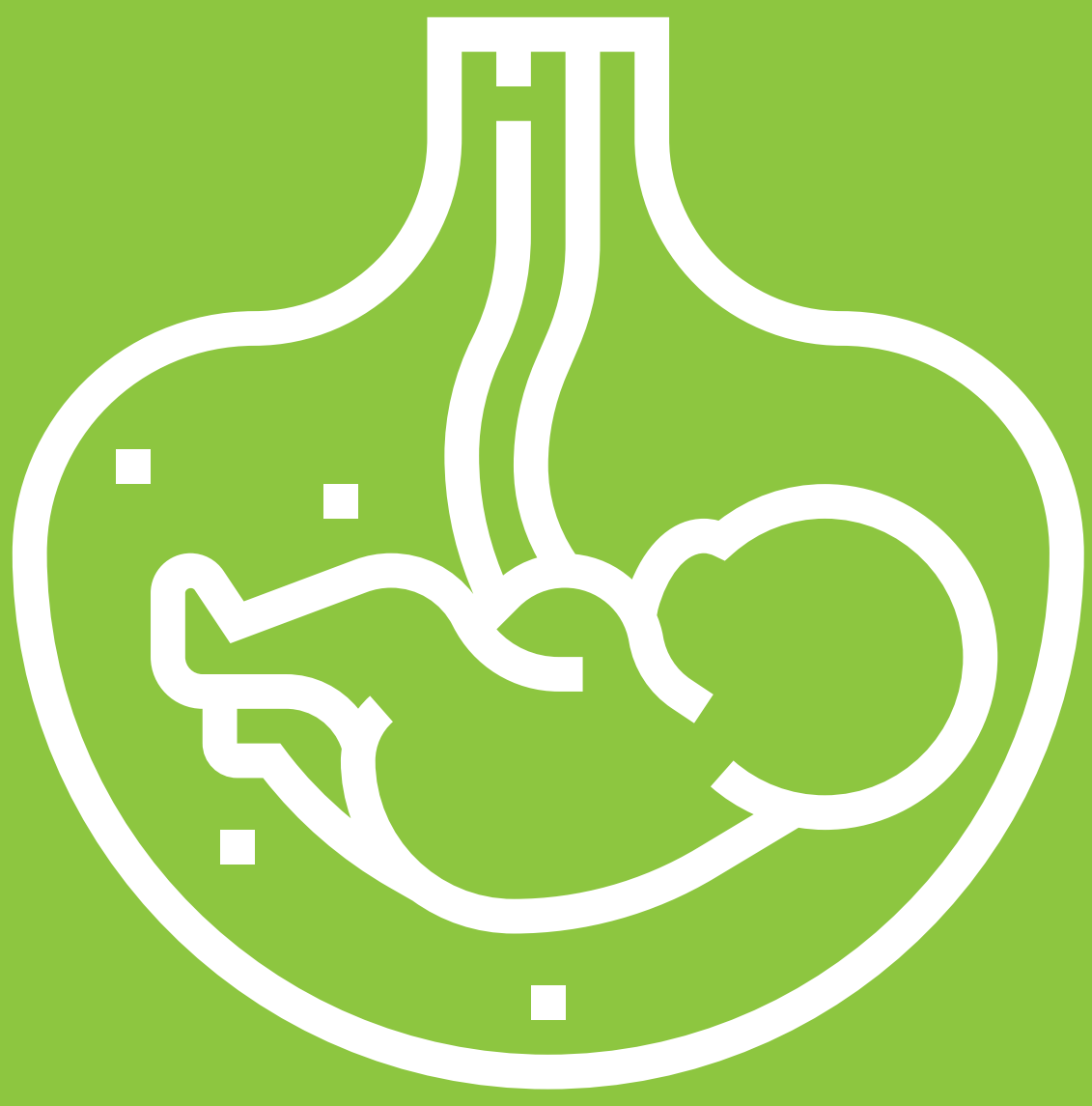
Primary Objective:
To formulate clinical decision making protocols for common and serious medical/ surgical conditions for both OPD and IPD management at primary, secondary and tertiary levels of healthcare system for equitable access and delivery of health services which are locally contextual

Secondary Objective:
To facilitate PMJAY arm of Ayushman Bharat with secondary and tertiary level management of all surgical and medical conditions covered under the scheme.

METHODOLOGY

PROCESS OVERVIEW





OBG

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Standard Treatment Workflow (STW) for

ANTE-NATAL MANAGEMENT OF NORMAL PREGNANCY

ICD-11-QA42

FIRST VISIT (PREFERABLY IN FIRST TRIMESTER)

ASK

- Age
- LMP
- Calculate EDD
- Parity & obstetric history
- Any complaints especially excessive nausea & vomiting/ bleeding PV
- H/o medical illness : diabetes, hypertension, cardiac problem, TB, epilepsy or any other chronic illness
- Consanguinity, multiple pregnancy
- H/o blood transfusion and H/o prior surgical intervention
- Personal history : tobacco/ alcohol intake
- Family history : diabetes, hypertension, genetic disorders/ congenital problems, multiple pregnancy, infections including tuberculosis

EXAMINE

- Height, weight
- Calculate BMI
- Pallor, Jaundice, Pedal edema
- Pulse, BP, RR, temperature
- Thyroid
- Breast
- Respiratory and CVS examination
- P/A examination, P/S and P/V examination

If woman presents with bleeding per vaginum do P/A & P/S to confirm amount of bleeding & rule out local causes. All such cases to be referred to CHC or higher centre

INVESTIGATIONS

ESSENTIAL TESTS
- Hemoglobin
- Urine R & M
- ABO & Rh grouping

DESIRABLE TESTS
- VDRL/ RPR
- HIV
- HBsAg
- DIPSI test
- TSH in high risk cases (BOH, goiter, obesity or residing in iodine deficiency prone areas)

OPTIONAL TESTS*

Aneuploidy screen* by USG & double marker

DO

- UPT if in doubt
- Fill up Mother and Child protection card or ANC card, make entry on RCH portal & generate RCH number
- Give filled Mother and Child protection card & safe motherhood booklet to woman
- Give Tab Folic Acid daily
- Give first dose of Td
- Single booster dose if received the first dose within last 3 years

SECOND VISIT (SECOND TRIMESTER)

ASK

- Any complaints since last visit
- Quickening foetal movements
- Adherence to medications

EXAMINE

- Weight
- Pallor
- Pedal edema
- Pulse, BP in sitting position
- P/A examination for fundal height & fetal heart auscultation

INVESTIGATIONS

ESSENTIAL TESTS
- Hemoglobin
- Urine albumin

DESIRABLE TESTS
- USG (Level II between 18-20 weeks for gross congenital malformations)
- DIPSI test if >24weeks & at least 4 weeks have elapsed after 1st test

OPTIONAL TESTS*

Quadruple test as per availability

*Should be performed only if adequate counselling facilities are available

DO

- IFA tablet one (if Hb >11g%) or twice (if Hb <11g%) daily with water or lemon juice
- Refer to higher centre if no rise in Hb after 4 weeks of oral tablets
- Calcium carbonate 500 mg with vitamin D 250 units twice daily with meals.
- Calcium Carbonate and IFA not to be given together
- Single dose of Albendazole 400mg
- Ensure compliance for investigations and treatment
- Discuss birth preparedness
- Give second dose Td at least four weeks after first dose

THIRD (28 – 34 WEEKS) AND FOURTH VISIT (36 - 40 WEEKS)

ASK

- Same as above
- Record POG

EXAMINE

- Same as above
- Auscultate FHS
- Measurement of abdominal girth and Symphysiofundal Height

INVESTIGATIONS

- Hemoglobin
- Urine albumin
- Optional USG for fetal growth and liquor

DO

- Continue IFA and calcium tablets and ensure compliance
- If non compliant or Hb < 9g% give parenteral iron sucrose therapy (not > 200mg at one time & not > 3 times a week) and refer patient with Hb < 7g% to higher centre
- Refer to higher centre if any discrepancy between fundal height and period of gestation or danger signals

DANGER SIGNALS FOR PATIENT TO REPORT TO HEALTH FACILITY

- Fever
- Persistent vomiting
- Abnormal vaginal discharge
- Palpitations, easy fatigability and breathlessness at rest and/ or on mild exertion.
- **Generalized swelling of the body/ puffiness of the face**
- Vaginal bleeding
- Decreased or absent fetal movements at > 28 weeks gestation
- Leaking of watery fluid per vaginum (P/V)
- Severe headache/ blurring of vision/ convulsion
- Passing lesser amounts of urine and/ or burning sensation during micturition
- Itching all over the body

HIGH RISK PREGNANCY

- Any H/o medical illness, previous caesarean section, past obstetric mishap or congenital malformation
- Past H/o PPH
- Age > 35 years or < 19 years or parity > 4
- Malnourished (BMI < 18.5 kg/m ^{2} or > 30 kg/m ^{2})
- Hemoglobin < 7g%
- BP > 140/90mm Hg on 2 occasions 6 hours apart
- APH
- Discrepancy between fundal height and period of gestation > 4 weeks
- GDM/ overt DM
- Multiple pregnancy
- Malpresentation at term
- Previous uterine surgery

* High risk pregnancy to be delivered at district hospital/medical college
* Preferably to have antenatal care also at these centres

COUNSELLING AT ALL VISITS

- Timing and place of next ANC visit based on presence or absence of risk factor
- Rest, nutrition, balanced diet and exercise
- Counselling for HIV testing
- Danger signs
- Institutional delivery
- Birth preparedness
- Early & exclusive breastfeeding for six months
- Post partum contraception

BIRTH PREPAREDNESS MUST INCLUDE IDENTIFICATION OF THE FOLLOWING

- Facility for delivery
- Support persons
- Birth companion
- Means of transport in emergency (Including contact number)
- Blood donors (if required in emergency)

ASSESSMENT OF FUNDAL HEIGHT & ITS CORRELATION WITH GESTATIONAL AGE

At 12 th week : Just palpable above the symphysis pubis

At 16 th week : At lower one-third of the distance between the symphysis pubis and umbilicus

At 20th week : At two-thirds of the distance between symphysis pubis and umbilicus

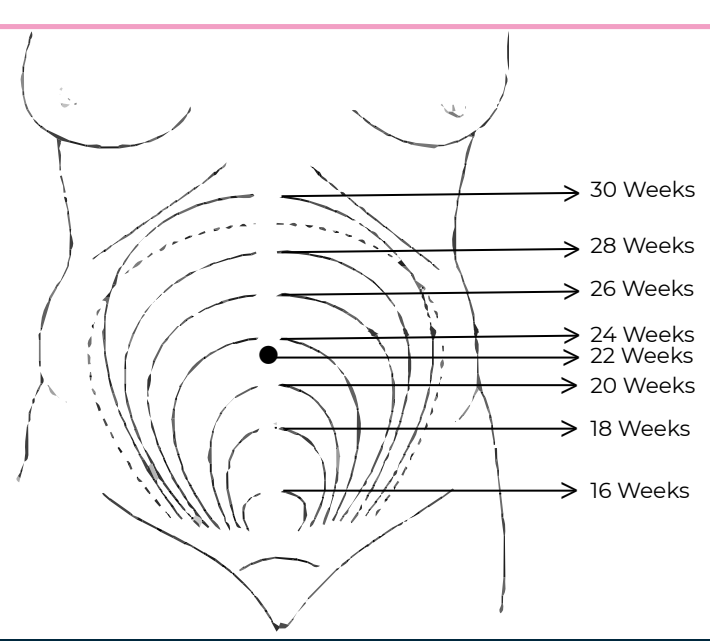
At 24th week : At the level of umbilicus

At 28th week : At lower one-third of the distance between the umbilicus and xiphisternum

At 32 nd week : At two-thirds of the distance between the umbilicus and xiphisternum

At 36th week : At the level of xiphisternum

At 40th week : Sinks back to the level of the 32 that in the 32 nd week nd week, but the flanks are full, unlike



ABBREVIATIONS

ANC: Antenatal Care
APH: Antepartum Haemorrhage
BOH: Bad Obstetrics History
CVS: Chorionic Villus Sampling
EDD: Estimated Due Date
FHS: Foetal Head Station
GDM: Gestational Diabetes Mellitus
PPH: Post Partum Haemorrhage
RCH: Reproductive and Child Health
Td: Tetanus Diphtheria
TSH: Thyroid Stimulating Hormone
UPT: Urine Pregnancy Test
USG: Ultrasound Sonography

REFERENCES

WHO Standard Of Care for Antenatal Care

CARING FOR EVERY STEP OF YOUR MOTHERHOOD JOURNEY

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Standard Treatment Workflow (STW) for
DILATATION AND CURETTAGE (D&C)

ICD-11-JA00

- Mostly done for gynaecological indications, but may also be considered in early pregnancy complications
- **Though office endometrial biopsy using either thin flexible or Karman cannula or office hysteroscopy has obviated the need for** traditional D&C in gynaecological cases, it still has a place when other modalities are not available or do not yield adequate tissue

INDICATIONS :

GYNAECOLOGICAL

- Abnormal uterine bleeding in appropriate cases (refer to HMB STW)
- Post menopausal bleeding (ECC with D&C)
- Infertility (to rule out TB)
  Amenorrhoea
- As a haemostatic measure in women with excessive / prolonged vaginal bleeding
- **Inadequate tissue obtained after office** sampling

EARLY PREGNANCY COMPLICATIONS

- Retained products of conception or as a treatment of inevitable, incomplete, missed, septic or induced abortion
- Molar pregnancy

GYNAECOLOGICAL PROCEDURES

- Endometrial Aspiration Biopsy [EA]
  OR
- D & C
  OR
- Differential curettage (Endocervical curettage [ECC] with EA)

PROCEDURES FOR EARLY PREGNANCY COMPLICATIONS

- Dilatation and Evacuation [D & E]
  OR
- D & C
  OR
- Evacuation (with or without suction)

CONTRAINDICATION

Acute pelvic and vaginal infections

WHERE CAN IT BE PERFORMED?

- In secondary or tertiary healthcare centres preferably where facilities for anaesthesia and operation theatre are available to deal with procedure related complications, if any.
- Endometrial aspiration biopsy is usually done as an outpatient procedure in non pregnant cases.

ALL TISSUE REMOVED MUST BE SENT FOR HISTOPATHOLOGICAL EXAMINATION

PRE- OPERATIVE REQUISITES

Presence of a valid indication	General medical fitness & no contraindication	A written informed consent

ANESTHESIA (ANY OF THE FOLLOWING)

- General anesthesia
- Regional anesthesia
- Paracervical block with 1% xylocaine
- IV sedation
- IM/oral analgesics

Strict asepsis to be maintained. Antibiotics to be used judiciously and decided as per need of individual case.

POST PROCEDURE CARE & FOLLOW UP

- Observe the patient for minimum two hours after the procedure for haemorrhage or any other symptoms or signs of complications prior to discharge
- Patient can be discharged as soon as she is comfortable and alert
- Most common side effect is abdominal cramps which can be managed by oral analgesics
- **Warning signals to report back** are to be explained at the time of discharge - severe pain, bleeding, foul smelling discharge or fever
- Follow up is done after a week with histopathology report for further advice.

COMPLICATIONS

- Excessive bleeding
- Cervical laceration
- Perforation of the uterus
- Injury to bowel and bladder
- Pelvic infection
- Post-operative intra uterine adhesions

DO'S

- Evacuation of urinary bladder before procedure.
- Safety checklist
- Dorsal/lithotomy position
- Bimanual pelvic examination prior to the procedure
- Sounding to measure uterocervical length ONLY in non pregnant women.
- Sample to be sent for histopathology and microbiology (where indicated)
- **REFER in case of a complication**

DONT'S

- Over abduction of legs
- No sounding in cases of pregnant uterus.
- No forceful insertion of any instrument
- Abandon the procedure in case of suspected perforation and refer to higher centre.
- Insertion of the dilator should be just beyond the internal os and NOT till the fundus

D&C is a blind procedure and may miss the pathology in some cases. In cases where focal pathology is suspected, tissue should be obtained under hysteroscopic visualization.

REFERENCES

Dutta, DC. DC Dutta's Textbook of Obstetrics: Including Perinatology & Contraception. 10th ed. Edited by Hiralal Konar. New Delhi: Jaypee Brothers Medical Publishers; 2025.

☛ COUNSELLING IS AN IMPORTANT ADJUNCT TO MANAGEMENT

☛ OLD PROCEDURES BUT STILL BEING USED

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Standard Treatment Workflow (STW)

HEAVY MENSTRUAL BLEEDING (HMB)

ICD-11-GA20

TO DO AT ALL LEVELS

HISTORY

- Age
- Parity, Abortions, Infertility
- Detailed Menstrual History Including Irregularities
- Other Medical Illness: Thyroid Disorder, Hypertension, Bleeding Disorders, Heart Disease, Liver Disorders,
- IUCD Use, Tubectomy
- Drug History
- Family history-Malignancies, Bleeding disorders

EXAMINATION

General
- Pallor (Mild/Moderate/Severe)
- Calculate BMI
- Pulse rate and BP measurement
- Lymphadenopathy

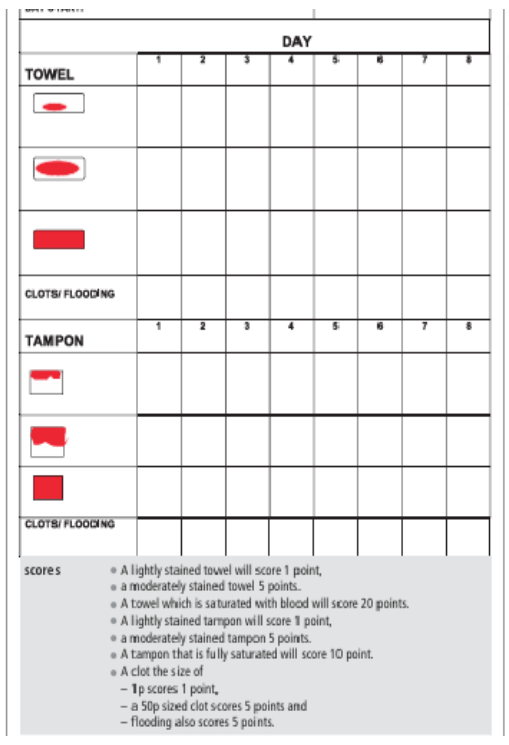
Systemic
- CVS, RS and hepatosplenomegaly,
- Mass abdomen

SUPPORTIVE TREATMENT

- Reassurance
- Hematinics
- Tranexamic acid **during** episode of heavy bleeding (Injection/Oral)
- Tranexamic acid+ Mefenemic acid- if pain is associated

MANAGEMENT OF HMB AT PRIMARY LEVEL

PICTORIAL BLOOD ASSESSMENT CHART (PBAC)



INVESTIGATIONS
- Hemoglobin
- CBC with peripheral smear
- BT / CT
- LFT

HISTORY AND EXAMINATION

- Abnormality → Refer to Higher centre
- No Abnormality
  - Adolescents → USG → Supportive Treatment → -Tranexamic acid - OC Pills → No Relief → Refer to higher centre
  - Women of Reproductive Age → Exclude pregnancy Speculum examination Pelvic examination → Any Abnormality → Refer to higher centre
  - Age > 40 years → Refer to higher centre

No abnormality
- Contraception desired → OC Pills → No Relief → Refer to higher centre
- Contraception not desired → - NSAIDs - Tranexamic acid - Progestogens**

If Hb <7g/dL or acute ongoing blood loss refer to higher centre
* Exclude pregnancy in all women of reproductive age group after appropriate consent
** Amongst progestogens Norethisterone provides the best hemostasis

MANAGEMENT OF HMB AT SECONDARY LEVEL (CHC)

HISTORY AND EXAMINATION

- Adolescents → USG → Supportive treatment → -Tranexamic acid - OC Pills → No Relief → Refer to higher centre
- Married <40 years → Do USG
  - Endometrial thickness < 12 mm → Supportive treatment
  - ET>12mm or High Risk for endometrial cancer* → Do endometrial sampling and send for histopathological examination
    - Secretory/Proliferative Phase endometrium without hyperplasia → - NSAIDS - Tranexamic acid - Combined OC Pills - Progestogens - LNG IUS → If no relief, Refer to higher centre
    - Hyperplasia without atypia → - Levonorgestrel-releasing intrauterine system (LNG IUS) Progesterones Hormonal therapy to continue for 6 months → If no relief or recurrence Refer to higher centre
    - Hyperplasia with atypia/ malignancy → Refer to higher centre
- Married >40 years → Do endometrial sampling and send for histopathological examination
- Post Menopausal → Refer to higher centre

INVESTIGATIONS
- Hemoglobin
- CBC with peripheral smear
- BT /CT, LFT, RFT
- ABO and Rh typing
- Thyroid function test
- USG of Abdomen & Pelvis

In selected cases
- SIS/Hysteroscopy MRI

If Hb <7g/dL or acute ongoing blood loss refer to higher centre

HIGH RISK FOR ENDOMETRIAL CANCER

Patient having:
- Low parity
- Obesity
- PCOD
- Diabetes

MANAGEMENT OF HMB AT TERTIARY LEVEL

HISTORY, EXAMINATION AND ULTRASONOGRAPHY

- No structural abnormality
  - Adolescents → USG → Supportive treatment → -Tranexamic acid - OC Pills → No Relief → Refer to higher centre
  - < 40 years → - NSAIDS - Tranexamic Acid - OC Pills - Progestogens - LNG IUS - Ormeloxifene - Ablative Techniques → If no relief 3-6 months → Consider hysterectomy
  - > 40 years → Endometrial sampling - D&C/ Hysteroscopic guided
    - No hyperplasia or benign hyperplasia → Conservative modalities - Tranexamic Acid - Progestogens - LNG IUS - Ormeloxifene - Ablative techniques → If no relief → Hysterectomy
    - Atypical Hyperplasia → Hysterectomy
- Structural abnormality
  - Thickened endometrium → Endometrial sampling - D&C/ Hysteroscopic guided
  - Adnexal mass Fibroids & polyps, and adenomyosis → Management as per the condition

INVESTIGATIONS
- Hemoglobin
- CBC with peripheral smear
- BT/CT
- ABO and Rh typing
- TSH
- USG of Abdomen & Pelvis

Blood transfusion if Hb <7g/dL or acute ongoing blood loss

TREATMENT FOR ACUTE BLEEDING EPISODE

- IV Tranexamic acid 1g stat slowly followed by oral Tranexamic acid 0.5-1g, 6-8 hourly for 5 days
- Blood transfusion if Hb <7g/dL

HORMONE THERAPY

- Consider one of the following
  - Norethisterone (max daily dose 40 mg) OR
  - Medroxyprogesterone acetate (max daily dose 40 mg)
  - Hormone therapy should be given orally daily in divided doses from the fifth day of the cycle for three weeks and repeated in a cyclical manner for total of 4-6 cycles of treatment
  - As an alternative LNG IUS should be considered

COUNSELLING IS AN IMPORTANT ADJUNCT TO MANAGEMENT

CONSERVATIVE MANAGEMENT FOR HMB MUST BE ATTEMPTED BEFORE DEFINITIVE SURGICAL PROCEDURE ESPECIALLY IN YOUNGER WOMEN

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Standard Treatment Workflow (STW) for

HYSTERECTOMY FOR BENIGN GYNAECOLOGICAL CONDITIONS

IN WOMEN AGED LESS THAN 40 AND/OR LOW PARITY IT IS MANDATORY TO HAVE A SECOND OPINION FROM A QUALIFIED GYNAECOLOGIST

HYSTERECTOMY TO BE CONSIDERED ONLY WHEN CHILD BEARING IS COMPLETED AND IT WILL IMPROVE QUALITY OF LIFE OF WOMAN

INDICATIONS :

LEIOMYOMA
- Symptomatic fibroids especially if not responding to medical management
- Asymptomatic fibroids greater than or equal to 14 weeks uterine size
- Fibroid causing hydroureteronephrosis
- Rapidly enlarging fibroids
- Any fibroid causing severe anemia

HEAVY MENSTRUAL BLEEDING
- Failed medical treatment

ENDOMETRIOSIS
- Failed medical treatment
- Causing hydroureteronephrosis
- Recurrence after medical/conservative surgical management

PROLAPSE
- Third or fourth degree utero vaginal prolapse

PRE - INVASIVE DISEASES
- Endometrial hyperplasia without atypia with failed medical treatment
- Endometrial hyperplasia with atypia.
- CIN II with poor compliance or CIN III

OTHERS
- Adnexal masses : Need for hysterectomy to be individualised and justified
- Recurrent post-menopausal bleeding (even in the absence of malignancy)

ROUTES OF HYSTERECTOMY

- **ABDOMINAL**
- **VAGINAL**
  - Pelvic organ prolapse
  - Non descent hysterectomy
- **LAPAROSCOPIC**
  - In appropriately selected patients where expertise and equipments are available

Simple ovarian cysts less than 5 cm in size and without other significant/ suspicious features should be kept on observation and reviewed after 6 months

HYSTERECTOMY SHOULD NOT BE DONE FOR

White discharge per vaginum	Cervicitis	Non specific abdominal or pelvic pain	Minor degree of utero vaginal prolapse	Fibroids which are small (less than 5 cm) or Asymptomatic (less than12 weeks size uterus)	Simple ovarian cyst less than or equal to 5 cm

COMPONENTS OF PRE OPERATIVE COUNSELLING AND INFORMED CONSENT

- Need for hysterectomy
- Alternative treatment options
- Risks and benefits
- Potential complications of the procedure
- Removal/ conservation of ovaries & tubes
- Route of hysterectomy
- Possible need for post operative Hormone therapy in selected cases

PREOP INVESTIGATIONS

- Complete Blood Count
- Blood grouping & cross matching
- Fasting & Post Prandial Blood Sugar
- Renal Function Test
- Liver Function Test
- Urine Routine & Microscopy
- Electrocardiogram
- X ray chest
- Pre-anesthetic checkup (PAC)

COMPLICATIONS TO BE EXPLAINED

- Risk of Infection
- Bleeding (primary/reactionary/secondary)
- Injury to bladder/bowel/ ureter
- Pain
- Fever
- Hernia (rare and late complication)

FOLLOW UP

- Discharge summary with operative details
- Review for histopathology report
- Report if there is fever, bleeding or any other symptoms
- Avoid lifting heavy weight for 8 weeks
- Abstinence for eight weeks
- Adequate iron and calcium & Vitamin D3 supplements
- Evaluate need for hormone therapy in selected patients

- Ovaries should be preserved in most pre-menopausal women unless diseased or removal specifically indicated
- While doing hysterectomy for benign gynaecological conditions in pre-menopausal women, it is recommended to combine it with bilateral salpingectomy with a view to minimise the risk of subsequent development of ovarian malignancy

REFERENCES

1. *Pérez-López FR et al, Interventions to reduce the risk of ovarian and fallopian tube cancer: A European Menopause and Andropause Society Postition Statement. Maturitas. 2017*
2. *Darelius A et al, Efficacy of salpingectomy at hysterectomy to reduce the risk of epithelial ovarian cancer: a systematic review. BJOG. 2017 .*

COUNSELLING IS AN IMPORTANT ADJUNCT TO MANAGEMENT

☛ IMPORTANT PROCEDURE IN APPROPRIATELY SELECTED CASES

December/ 2025

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Standard Treatment Workflow (STW)

POSTPARTUM HAEMORRHAGE (PPH)

ICD-11-JA43

More than 500 ml of blood loss or any amount of bleeding which causes derangement of vital parameters is PPH

RED FLAG SIGN:
- PR > 120/min
- Systolic BP < 100 mm Hg
- Tachypnea < 95%
- SpO_2 < 95%
- Shock index >1 (Shock index = pulse rate/systolic BP)
- Deterioration of sensorium

- Call for help
- Rapid Initial Assessment - evaluate vital signs: PR, BP, RR and Temperature
- Establish two IV lines with wide bore cannula (16-18 gauge)
- Draw blood for grouping and cross matching
- Start RL/ NS, infuse 1 L in 15-20 minutes*
- Give Oxygen @ 6-8 L /minute by mask,
- Insert indwelling Catheter and connect to urobag
- Check vitals and blood loss frequently - at least every 15 minutes
- Monitor input and output

SUPPORTIVE MANAGEMENT
- Monitoring of vitals
- Measurement of input and output
- Give blood transfusion as indicated

- Give Inj. Oxytocin 10 IU IM (if not given after delivery)
- Start Oxytocin infusion : 20 IU in 500 ml RL/NS @ 40-60 drops per minute
- IV bolus of oxytocin should NOT be given
- Check to see if placenta has been delivered.

PLACENTA NOT DELIVERED

- Continue Oxytocin drip
- Palpate uterus
- Attempt controlled cord traction if uterus is contracted

PLACENTA DELIVERED
- Continue oxytocin and uterine massage
- Check for completeness of placenta and membranes

PLACENTA NOT DELIVERED
Shift for manual removal of placenta (MRP)

PLACENTA DELIVERED

- Fundal Massage of the uterus
- Inspect placenta for completeness
- Explore uterus for any retained placental bits/ membranes/ clots and evacuate

Uterus well contracted but bleeding continuing

TRAUMATIC PPH

- Explore for cervical/ vaginal/ perineal tears. Repair if present
- If bleeding persists despite repair of above, suspect inadequate repair, rupture uterus or scar dehiscence.
- Shift to OT for exploration under GA and/or laparotomy

Uterus flabby

ATONIC PPH

Bimanual compression and pharmacotherapy as per details below

If bleeding continues without any apparent cause check for coagulopathy

* Arrange for blood / blood product at the earliest
3 ml of crystalloid solution should be used to replace every ml of blood lost during the initial part of the acute bleeding phase

MANAGEMENT OF ATONIC PPH

PHARMACOTHERAPY

ANY OF THE FOLLOWING OPTIONS CAN BE USED EITHER ALONE OR IN COMBINATION AS PER AVAILABILITY

Inj Methyl Ergometrine 0.2 mg IM or IV slowly
- Contraindicated in hypertension, severe anemia, heart disease
- Can be repeated after 15 minutes to a maximum of 5 doses (1mg)

Or Tab Misoprostol (PGE1) 800 µg Per rectal or sublingual

Or Inj Carboprost (PGF2 alpha) 250 µg IM
- Contraindicated in asthma
- Can be repeated every 20 minutes to a maximum of 8 doses (2 mg)

Bleeding not controlled

Explore uterus for retained bits

Continue bimanual compression & Oxytocin infusion @10-20 units /hr

Bleeding not controlled

- Check for coagulation defects
- If present give blood and blood components

Intra uterine balloon tamponade using condom catheter

Bleeding still not controlled

Surgical intervention
- Uterine compression sutures
- Systematic uterine devascularisation by doing Uterine → Ovarian → Internal Iliac artery ligation
- Hysterectomy

Bleeding controlled

- Repeat uterine massage every 15 minutes for first two hours
- Monitor vitals every 10 minutes for 30 minutes , every 15 minutes for next 30 minutes and every 30 minutes for next 3-6 hours or until stable
- Continue Oxytocin infusion @5-10 units /hr (total Oxytocin not to exceed 100 IU in 24 hours)

Tranexamic Acid (1g slow IV) is routinely recommended as an adjunctive treatment for PPH to be used as early as possible irrespective of cause but definitely within three hours of delivery. It can be repeated after 30 minutes if bleeding persists Standard treatment for PPH must continue meanwhile

Timely Referral to a higher centre must be considered if facilities for blood transfusion or exploration and surgical intervention are not available. Patient must be transported with I/V fluids containing oxytocin on flow and preferably with uterine/vaginal tamponade in situ.
- Aortic compression may be used as a short time measure to reduce blood loss while awaiting definitive steps.
- Non- pneumatic anti-shock garment (NASG) should be used during transport if available
- Uterine artery embolization may be offered in selected patients if facilities are available

COUNSELLING IS AN IMPORTANT ADJUNCT TO MANAGEMENT

☛TIMELY ACTION AND REFERRAL IS IMPORTANT TO SAVE THE LIFE OF THE MOTHER

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December/ 2025

Department of Health Research
Ministry of Health and Family Welfare, Government of India

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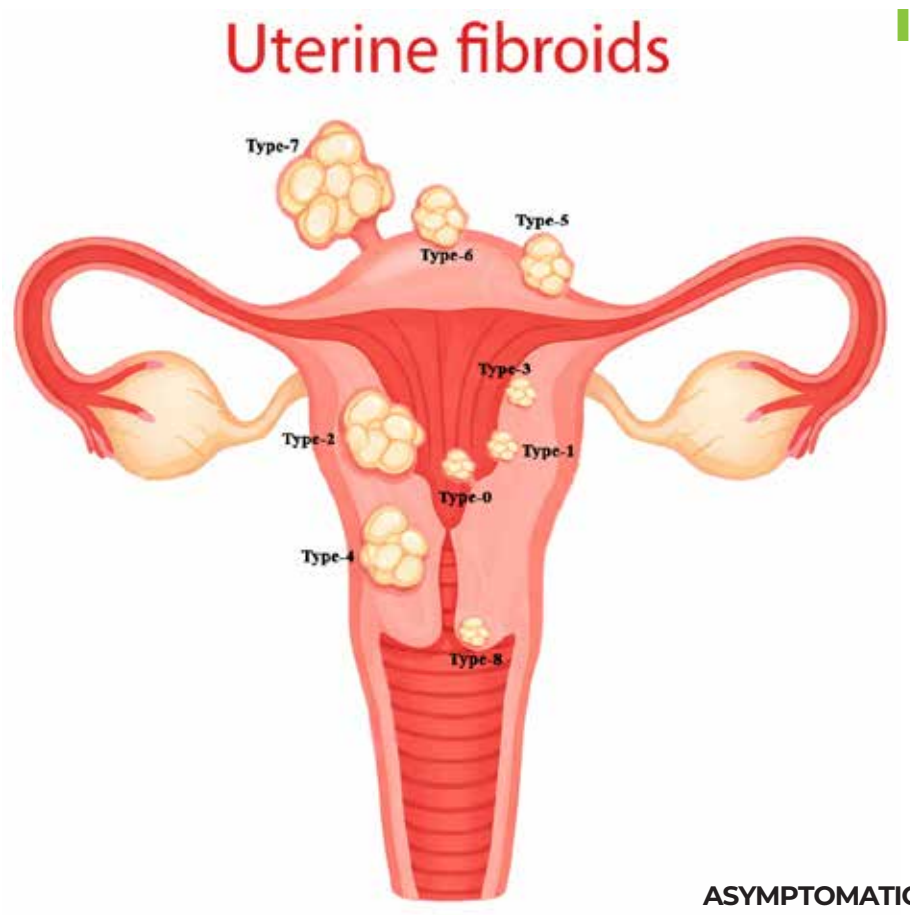
Standard Treatment Workflow (STW)

UTERINE FIBROIDS AND POLYPS

ICD-11-2E86.0 & 2D70.Z



SYMPTOMS

- Heavy menstrual bleeding/ Irregular bleeding or spotting
- Urinary symptoms
- Heaviness in lower abdomen
- Awareness of mass
- Pain abdomen, dysmenorrhea
- Infertility
- Asymptomatic/ USG diagnosis

Essential- CBC , Ultrasound

Desirable – TFT

Optional – HIGHER IMAGING LIKE MRI

ASYMPTOMATIC FIBROIDS <5CM DO NOT NEED TO BE TREATED

FIGO CLASSIFICATION

Submucosal Group

- Type0- Pedunculated , intracavitary
- Type1- <50% intramural
- Type 2- >50% intramural

Other Group

- Type3-100% intramural touching endometrium
- Type4- Intramural
- Type5-subserosal >50% intramural
- Type6 -subserosal <50% intramural
- Type7-subserosal pedunculated
- Type8-Others like cervical, parasitic

RED FLAG SIGNS

- Severe Anemia
- Severe pain eg due to degeneration, torsion
- Excessive bleeding not responding to medical management
- Acute retention of urine

SUPPORTIVE MEASURES MAY BE REQUIRED

MANAGEMENT

Treatment modality should be individualized to each patient after considering patient's age, parity, severity of symptoms, need for fertility preservation, presence of other gynecological diseases and any other co-morbidity

- **Primary and secondary Care Hospitals:** Initial Detection and Counselling
- **Symptom Management:** Non-Steroidal Anti-Inflammatory Drugs (NSAIDs), iron and folic acid
- **Basic Medical Therapy:** oral contraceptives or progestin for abnormal bleeding.
- **Referral:** Cases requiring definitive diagnosis, specialized treatment, or surgery

Tertiary Care Hospitals
Advanced Diagnostics: Transvaginal ultrasound, saline infusion sonography, MRI, and hysteroscopy
Therapeutic
Surgical Interventions: Myomectomy or hysterectomy
Minimally Invasive Procedures: Laproscopic or hysteroscopic myomectomy and polypectomy
Specialized non-surgical Management: May be considered in specialised situations eg fibroid with subfertility. Uterine artery embolization (UAE), radiofrequency ablation (RFA), and MRI-guided focused ultrasound surgery (FUS) may be considered if facilities are available

Indications for alternative management strategies

- Patient not desirous of surgery.
- During Pre- operative optimization
- Short term alternative to surgery in perimenopausal women

Counselling + Patient Education

Approximately 80 percent of females will have fibroids in their lifetime
Fibroids are commonest benign uterine tumours and risk of malignancy is very low
Treatments are available for fibroid-related problems like heavy menstrual bleeding, pain or pressure in the pelvis, or problems with pregnancy or infertility
There are chances of recurrence in case of conservative surgical or non-surgical treatments

FIBROIDS & POLYPS

- Endometrial polyps/sub mucus fibroids
  - Hysteroscopic removal
    - Endometrial polyps
    - Select appropriate patient with submucus fibroids (selection should be based on size and proportion of the fibroid projecting into the uterine cavity)
- Fibroids
  - Small Fibroids (<5cm)
    - Asymptomatic
      - Observation
    - Symptomatic
      - Medical Management:
        - Tranexamic acid
        - Levonorgestrel-releasing intrauterine system (if uterine cavity normal)
        - Progestogenic agents*
      - No Relief
  - Large Fibroids (Uterine size >12 weeks)
- Fibroid Polyps
  - Thin pedicle
    - Polypectomy
  - Thick pedicle
    - Individualized management at tertiary centre

- ALL THERAPUTIC OPTIONS NEED TO BE EXPLAINED TO THE PATIENT INCLUDING JUST KEEPING THE PATIENT ON OBSERVATION.
- ALL PATIENTS OF FIBROID UTERUS DO NOT NECESSARILY NEED HYSTERECTOMY

Discuss treatment option based on age and parity

- Non surgical
  - Uterine artery embolization
- Surgical
  - Hysterectomy (to be avoided in young patients aged <35 years as far as possible)
  - Myomectomy (younger age &/ or low parity)

*Norethisterone (max daily dose 40 mg) OR Medroxyprogesterone acetate (max daily dose 40 mg). Any hormone should be given orally daily in divided doses for a duration of three weeks and repeated in a cyclical manner for total of 4-6 cycles of treatment

ABBREVIATIONS

MRI: Magnetic Resonance Imaging
TFT: Thyroid Function Test
USG: Ultra Sonography

REFERENCES

1. Vilos GA, et al. Guideline No. 461: Management of Uterine Leiomyomas (Fibroids). Journal of Obstetrics and Gynaecology Canada (JOGC). 2023;45(6):631-652.DOI: 10.1016/j.-jogc.2023.01.002
2. Lumsden MA, Hamoodi I, Gupta J, et al. Uterine fibroids: current perspectives. International Journal of Women's Health. 2015;7:95-114. DOI: 10.2147/IJWH.S51083
3. Munro MG, Critchley HOD, et al. (FIGO). FIGO Working Group on Menstrual Disorders: Medical management of fibroids—Best Practice Recommendations.International Journal of Gynecology & Obstetrics. 2022;157(2):215-229. DOI: 10.1002/ijgo.14056
4. Uterine Artery Embolisation in the Management of Fibroids: Clinical Recommendations and Evidence Summary. London: RCOG, 2021.

☛ STRUCTURED DECISION MAKING IN MANAGEMENT OF UTERINE FIBROIDS AND POLYPS SHOULD BE THE NORM

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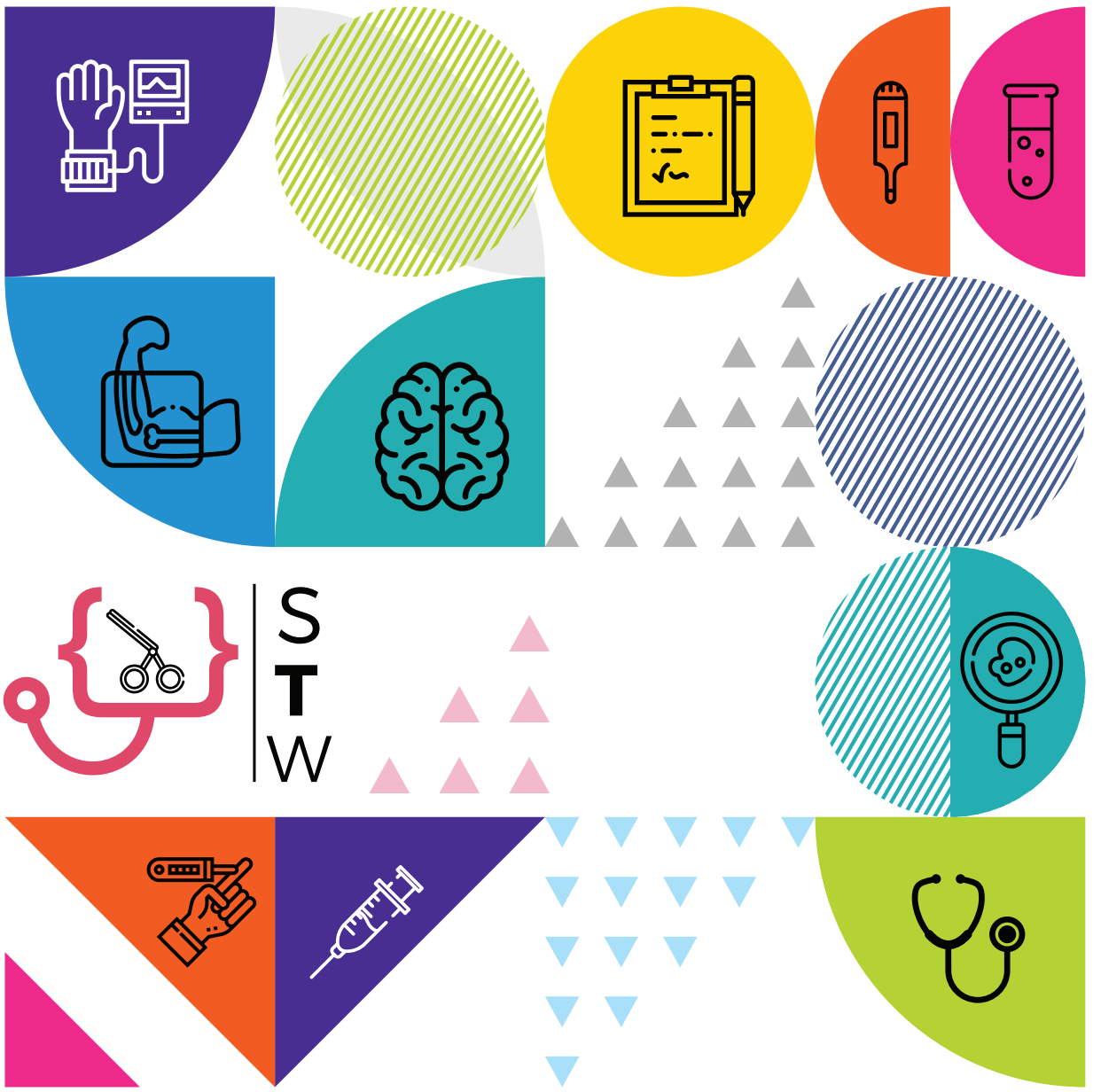
STANDARD TREATMENT WORKFLOWS *of India*



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