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Ministry of Health Malaysia
Pharmaceutical Services Programme

OBSTETRICS & GYNAECOLOGY WARD PHARMACY SERVICES PROTOCOL

FIRST EDITION



2026

Obstetrics & Gynaecology Ward Pharmacy Services Protocol
First Edition, 2026

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This edition was produced after reviewing the most recent evidence at the time of development. Every healthcare provider is responsible to make appropriate clinical judgement in consideration of each patient's condition at presentation based on treatment options available locally.

FOREWORD

Obstetrics and Gynaecology (O&G) is a specialized field dedicated to the care of women's health, encompassing both routine preventive care and complex clinical scenarios. With the growing diversity of patient presentations, effective pharmacological management in O&G has become increasingly important. Consequently, the role of pharmacists in O&G has expanded significantly. Clinical pharmacists are now integral to multidisciplinary teams, offering expertise in drug selection, dosing adjustments, safety monitoring, and patient counselling, particularly in areas such as pregnancy, lactation, fertility treatments, hormonal therapies, and emergency obstetric interventions.

The Obstetrics & Gynaecology Pharmacy Protocol, First Edition (2026) has been developed to serve as a structured, accessible, and practical reference for pharmacists engaged in the O&G Pharmacy Service. This protocol aims to support the standardization of clinical practice and to offer evidence-based guidance that promotes the safe, effective, and timely use of medications.

I hereby express my heartfelt gratitude to the dedicated team whose insights and efforts contributed to the publication of this protocol.

Thank you.

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CONTENTS

ABBREVIATIONS **8**
1. OVERVIEW **9**
1.1 INTRODUCTION 9
1.2 OBJECTIVES 11
1.3 SCOPE OF SERVICE 11
1.4 CATEGORIZATION OF MAJOR O&G SUB-DISCIPLINES 11
2. ROLES AND RESPONSIBILITIES OF O&G WARD PHARMACISTS **12**
2.1 MEDICATION HISTORY TAKING AND MEDICATION RECONCILIATION 13
2.2 CASE CLERKING AND REVIEWING 14
2.3 CLINICAL PHARMACY REPORT 15
2.4 PATIENT REFERRAL 15
3. MEDICATION COUNSELLING **17**
4. REFERENCES **18**
5. APPENDIX **19**
APPENDIX 1: PHARMACOTHERAPY KNOWLEDGE ESSENTIALS FOR O&G PHARMACISTS 19

ABBREVIATIONS

ADR	**-**	Adverse Drug Reactions
CP1	**-**	Medication History Assessment Form
CP2	**-**	Pharmacotherapy Review
CP3	**-**	Clinical Pharmacy Report Form
CP4	**-**	Patient Referral Note
GTD	**-**	Gestational Trophoblastic Disease
LMWH	-	Low Molecular Weight Heparin
MOH	**-**	Ministry of Health
O&G	-	Obstetrics & Gynaecology
PCIs	**-**	Pharmaceutical Care Issues
PMOS	**-**	Polyendocrine Metabolic Ovarian Syndrome
PN	**-**	Parenteral Nutrition
PPROM	**-**	Preterm Premature Rupture of Membrane
SDG	-	Sustainable Development Goals
TDM	**-**	Therapeutic Drug Monitoring
VTE	**-**	Venous Thromboembolism

1. OVERVIEW

1.1 INTRODUCTION

Over the past two decades, the role of pharmacists in Malaysia has significantly expanded, particularly within pharmacy subspecialties involved in ward pharmacy services. This development highlights the growing contribution of pharmacists to multidisciplinary disease management. However, there remains a notable gap in the integration of pharmacists within obstetrics and gynaecology (O&G) ward pharmacy services, which limits their involvement in the pharmacotherapy management of O&G patients.

Pharmacists play a crucial role in providing pharmaceutical care within O&G wards, although their involvement in this field is not as extensive as in other medical specialities. This underscores the urgent need to enhance ward pharmacy activities in O&G, as pharmacists can greatly improve health outcomes in managing complex pregnancies and gynaecological conditions. Their expertise is particularly valuable in evaluating the teratogenic risks or benefits of continuing certain medications during pregnancy, a task that requires careful consideration and knowledge beyond that of other medical professionals[1]. Furthermore, pharmacists, with their deep understanding of pharmacodynamics and pharmacokinetics, are well-equipped to assess the safety of medications during breastfeeding, taking into account infant-specific factors[2].

Clinical pharmacists in the O&G field also encounter cases with varying complexity, particularly when managing patients in transitional health states[3]. These patients often have underlying chronic conditions and may be on multiple medications, presenting additional challenges. As such, pharmacists play a critical role in medication history-taking, reconciliation, and review as part of their ward pharmacy activities. Pharmacist involvement in medication therapy management is vital for identifying and resolving medication-related issues, ensuring that patients receive safe and effective treatments. For instance, pharmacists are indispensable in managing venous thromboembolism (VTE) treatment, particularly in the administration of anticoagulants, to safeguard both maternal and fetal health.

In addition to these core responsibilities, pharmacists also provide specialized drug counselling tailored to O&G patients. This includes guidance on the administration of low molecular weight heparin (LMWH) and insulin injection techniques, as well as counselling on oral contraceptives, hormonal medications, and other drugs that require patient education. Pharmacists also offer comprehensive counselling to patients diagnosed with ectopic pregnancy or gestational trophoblastic disease (GTD), covering potential side effects, drug interactions, and the importance of post-treatment monitoring during methotrexate therapy. Moreover, pharmacists provide essential guidance to menopausal patients prescribed bisphosphonates, ensuring they understand proper administration techniques, potential side effects, and the importance of adequate calcium and vitamin D intake to support bone health.

Given the numerous opportunities for pharmacist involvement in this area, their role in O&G pharmacotherapy is invaluable to women's healthcare. This aligns with the United Nations Sustainable Development Goal (SDG) Target 3, which aims to reduce the global maternal mortality ratio to fewer than 70 per 100,000 live births, ensure universal access to sexual and reproductive health care services, eliminate epidemics of communicable diseases, and reduce premature mortality from non-communicable diseases by 2030[4]. In support of these goals, the Ministry of Health (MOH) Malaysia has established several Women and Children hospitals and complexes across the country, including:

- Hospital Tunku Azizah (Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur)
- Hospital Tengku Permaisuri Norashikin (Kajang, Selangor)
- Women, Children and Cardiology Complex (Ipoh, Perak)
- Hospital Wanita dan Kanak-Kanak (Kota Kinabalu, Sabah)
- Kompleks Rawatan Ibu dan Anak (Klang, Selangor)
- Pusat Rawatan Ibu dan Bayi (Kuala Terengganu, Terengganu)
- Blok Wanita dan Kanak-Kanak (Kangar, Perlis)

Further specialized facilities are being developed under the Eleventh and Twelfth Malaysia Plans (RMKe-11 & RMKe-12), in alignment with the Pharmaceutical Services Programme Strategic Plan 2021–2025, which emphasizes knowledge empowerment, quality use of medicines, and structured training models to build a competent pharmacy workforce.

1.2 OBJECTIVES

1. To optimize pharmacotherapy for O&G patients by ensuring the safe, effective, and evidence-based use of medications.
2. To enhance clinical outcomes through comprehensive medication management therapy. This includes addressing medication-related issues, supporting maternal and fetal health, and providing tailored counselling on drug use during pregnancy, breastfeeding, or other O&G-specific conditions.

The involvement of O&G ward pharmacists is crucial for delivering pharmaceutical care in drug therapy management, as it depends on the pharmacist's expertise and clinical skills to ensure effective patient care.

1.3 SCOPE OF SERVICE

The scope of in-patient pharmacy services is divided into two settings:

1. Ward pharmacy setting - Ward pharmacy services, inclusive of patient medication history-taking, screening of prescribed medications, bedside counselling and bedside discharge medication dispensing.

2. Medication supply setting - The supply of medications for warded patients and floor stock medications, specifically covering O&G cases.

1.4 CATEGORIZATION OF MAJOR O&G SUB-DISCIPLINES

Obstetrics & Gynaecology	**General Obstetrics**
	Maternal Fetal Medicine
	General Gynaecology
	Gynaeoncology

Note: Sub-disciplines in bold font are emphasized as key areas for pharmacist placement.

2. ROLES AND RESPONSIBILITIES OF O&G WARD PHARMACISTS

Accountable directly to the Head of Unit on all activities related to clinical ward pharmacy services and indirectly to the Head of Department.

1. To identify potential pharmaceutical care issues and perform pharmaceutical care interventions to optimise pharmacotherapy.
2. To conduct medication reconciliation and medication review for O&G patients.
3. To perform routine screening of patient's drug records during hospital stay to ensure medication safety, with a focus on the drugs used during pregnancy and lactation.
4. To identify and monitor patients who require therapeutic drug monitoring (TDM), parenteral nutrition (PN), or other drugs requiring close monitoring.
5. To collaborate actively with prescribers and other healthcare professionals on pharmacotherapy management.
6. To provide disease and medication counselling for O&G patients.
7. To perform bedside and discharge dispensing.
8. To document all clinically relevant data such as patient condition, pharmaceutical care issues, and interventions in the designated format of CP1, CP2, CP3 and CP4.
9. To report adverse drug reactions (ADR) and medication errors.
10. To report statistics as established by the Ministry of Health (MOH) Pharmaceutical Services Programme.
11. To participate in discussions and clinical case presentations among pharmacists to strengthen clinical knowledge.
12. To provide training to Provisionally Registered Pharmacists according to logbook requirements.
13. To provide continuous education on pharmacotherapy in O&G to other healthcare providers.
14. To carry out other activities as required by the department.

2.1 MEDICATION HISTORY TAKING AND MEDICATION RECONCILIATION

Medication history taking and medication reconciliation among O&G patients follow the same procedures as other ward pharmacy activities outlined in the MOH Pharmaceutical Services Programme Guideline on Ward Pharmacy Activities[5]. Documentation is done using the Medication History Assessment Form (CP1).

These activities are particularly important among O&G patients due to various clinical considerations, which include, but are not limited to the following:

1. **Complex Medication Regimens**: O&G patients often have complex medication regimens due to pregnancy, lactation, chronic conditions, or treatments related to menstrual disorders, uterine conditions, or menopausal therapy. Ensuring an accurate medication history taking and performing medication reconciliation are essential to prevent potential drug interactions and promote safe medication use.

2. **Pregnancy and Lactation**: O&G patients may be pregnant or breastfeeding, where certain medications may pose potential risks to both maternal and fetal health. Accurate medication history taking and medication reconciliation are vital for identifying potentially harmful drugs and enable appropriate therapeutic adjustments to ensure patient safety during these critical periods.

3. **Preventing Medication Errors**: O&G patients may receive care from multiple healthcare providers, increasing the risk of medication errors, such as duplication, omission, or inappropriate prescriptions. Accurate medication history taking and medication reconciliation help identify and resolve these issues, ensuring appropriate therapy.

4. **Managing Chronic Conditions**: Many O&G patients have underlying chronic conditions (e.g., diabetes, hypertension) that require ongoing medication management. Proper medication history taking and medication reconciliations can optimize therapeutic outcomes and reduce the economic burden.

5. **Patient Education**: Accurate medication history allows pharmacists to provide targeted counselling, addressing concerns specific to the patient's condition and medication regimen, especially in relation to contraception, hormonal therapy, insulin use, and LMWH.

2.2 CASE CLERKING AND REVIEWING

Case clerking and reviewing in O&G follow the same procedures as other ward pharmacy activities specified in the MOH Pharmaceutical Services Programme Guideline for Ward Pharmacy Activities[5]. The Pharmacotherapy Review (CP2) form is used for case clerking and review.

Important details to include when clerking obstetric cases include the gravidity and parity of the patient, as well as the relevant scan findings. These provide important context for medication management and overall patient care, such as identifying risk factors, adjusting medication dosages, and ensuring patient safety.
Skills required for efficient O&G cases clerking and review:

1. **Gathering and Analysing Relevant Information for O&G Patient Care:** Capable of retrieving and gathering pertinent information from medication charts, case notes, laboratory data, CP1, and patient interviews.

2. **Pharmacotherapy Knowledge in O&G**: A deep understanding of drug therapy, pharmacokinetics and pharmacodynamics in this patient population (refer Appendix 1).

3. **Clinical Judgment**: The ability to interpret and evaluate patient-specific clinical information and treatments, considering factors such as pregnancy, lactation, comorbidities, and physiological changes during pregnancy that affect drug metabolism and safety.

4. **Interdisciplinary Collaboration**: Work effectively within a multidisciplinary team, sharing knowledge, and providing input on pharmacotherapy to optimize patient outcomes.

5. **Communication Skills**: Effective communication with patients, healthcare teams, and other stakeholders to ensure accurate medication information is gathered, patient concerns are addressed, and clear advice is provided.

6. **Patient-Centered Care**: The ability to provide tailored pharmaceutical care based on individual patient needs, including counselling on drug safety during pregnancy, breastfeeding, and other O&G-related conditions.

7. **Problem-Solving**: The ability to identify and resolve medication-related problems, such as dosing issues, potential drug interactions, or the need for therapy adjustments in response to a patient's changing condition. Also, to formulate a pharmaceutical care plan, monitor their progress, and optimize outcomes based on specific clinical interventions.

8. **Distinguishing Pharmacists' Clinical Interventions from Physicians' Clinical Management Plans:** The ability to differentiate pharmaceutical care issues (PCIs) from the physician's management plan.

2.3 CLINICAL PHARMACY REPORT

Clinical Pharmacy Report in O&G is conducted in accordance with the same procedures as other ward pharmacy activities outlined in the MOH Pharmaceutical Services Programme Guideline for Ward Pharmacy Activities[5]. Clinical Pharmacy Report Form (CP3) is used to document all clinical activities and pharmaceutical interventions done by O&G pharmacists during ward rounds.

2.4 PATIENT REFERRAL

Patient referral in O&G adheres to the same procedures as those outlined for other ward pharmacy activities in the MOH Pharmaceutical Services Programme Guideline for Ward Pharmacy Activities[5]. The Patient Referral Note (CP4) is used as a pharmacy discharge summary to be given to the referred facility for further counselling and to inform them that the patient is required to see the primary care, pharmacist or doctor at that facility. Examples of O&G cases that may require patient referral are:

1. **Medication-related issues** such as dose adjustments for renal or hepatic impairment, potential drug interactions, or altering medications to ensure safety during pregnancy and lactation.
2. **Management of chronic conditions** like epilepsy, hypertension, or thyroid disorder that require medication adjustments.
3. **Counselling for complex drug regimens**, including hormonal medications, fertility treatments, or contraception options.
4. **Education on medication administration** such as insulin and LMWH injection techniques.

3. MEDICATION COUNSELLING

Medication counselling for O&G patients is conducted in accordance with the recommendations outlined in the MOH Pharmaceutical Services Programme Guideline for Ward Pharmacy Activities[5]. All counselling sessions shall be documented in the patient's medical case notes, following the documentation standards of each facility.

Medication counselling in the O&G ward is provided on an individual basis, either at the bedside or during discharge. The types of counselling include:

1. **Medication usage during pregnancy and lactation**, focusing on safety, potential risks, and benefits.
2. **Self-administration techniques for drug devices**, such as insulin injections for gestational diabetes and LMWH for VTE prevention or treatment.
3. **Counselling** for the treatment of Ectopic Pregnancy, and Gestational Trophoblastic Disease (GTD), with a focus on methotrexate therapy, as well as guidance on bisphosphonate use for menopausal patients at risk of osteoporosis due to declining estrogen levels.
4. **Hormonal medication counselling**, covering oral contraceptives, hormonal therapies, menopausal hormone therapies, and other available options.

Each session is tailored to the patient's specific needs, ensuring that they understand their medication regimen and its role in their care. The counselling activities shall be conducted in accordance with the MOH Pharmaceutical Services Programme Guideline on Medication Counselling[6].

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5. APPENDIX

APPENDIX 1: PHARMACOTHERAPY KNOWLEDGE ESSENTIALS FOR O&G PHARMACISTS

OBSTETRICS

Basics of Obstetric Pharmacology

- Physiologic and pharmacokinetic changes in pregnancy
- Safety of drugs in pregnancy and lactation

Antenatal Disorders

- Nausea and vomiting/ Hyperemesis gravidarum
- Infectious diseases in Obstetrics
- Diabetes in pregnancy
- Hypertensive disorder in pregnancy
- Thromboembolic diseases in pregnancy (including postpartum)
- Connective tissue disorders in pregnancy
- Anaemia in pregnancy
- Thyroid disorder in pregnancy
- Neurological and mental disorders in pregnancy

Peripartum and Postpartum Conditions

- Tocolysis in preterm labour
- Rhesus Isoimmunization
- Preterm Premature Rupture of Membrane (PPROM)
- Postpartum pain management
- Postpartum haemorrhage
- Prevention of preterm birth

Others

- Medical management of ectopic pregnancy
- Immunization in pregnancy and breastfeeding

GYNAECOLOGY

Menstrual Cycle

- Physiology of the menstrual cycle and role of hormones
- Menstrual disorders
- Uterine disorders

Sexual Reproductive Health

- Contraception
- Common gynaecological infections

Reproductive Medicine

- Introduction to Reproductive Medicine
- Polyendocrine Metabolic Ovarian Syndrome (PMOS)

Menopause

- Menopausal hormonal therapy

Gynaeoncology

- Introduction to Gynaeoncology
- Gestational trophoblastic disease



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