

مقارنة ما يقدمه البرنامج من نتائج تعليمية مستهدفة مع المعايير المرجعية لبرنامج  
الدكتوراة في الفارماكولوجيا الإكلينيكية

أ – المعرفة والفهم:

المقررات التي تحقق المعايير الأكاديمية للبرامج	ILOs مخرجات التعلم المستهدفة	(ARS) Benchmark لجامعة المعايير الأكاديمية Royal colleges of the physician	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا (درجة الدكتوراة في الفارماكولوجيا الإكلينيكية)
CPHARM 606 BP CPHARM 606 CP CHARM 606 PG	A1,2,3, 10, 13	1. Understand the processes that result in nationally applicable guidelines 2. Indications, contraindications, side effects, drug interactions and dosage of commonly used drugs	1- Recent advances and areas under research in the field of clinical pharmacology
CPHARM 606 BP	A8,9,14	3. Demonstrates a knowledge of research principles 4. Outlines the principles of formulating a research question and designing a project.	5. Scientific research ethics, research methodology & research design. Curriculum must advance knowledge of the basic principles of research, including how research is conducted, evaluated, explained to patients, and applied to patient care.
			6. Legal and medicolegal aspects in practice of clinical pharmacology as well as medical ethics.
CPHARM 606 GP CPHARM 606 BP CPHARM 606 CP CPHARM 606 PV	A4,5,6,7	4. Recalls drugs requiring therapeutic drug monitoring and interpret results 5. Recalls range of adverse drug reactions to commonly used drugs, including complementary medicines 6. Defines the effects of age, body size, organ dysfunction and concurrent illness on drug distribution and metabolism relevant to the trainee's practice	7. Principles and basic concepts of quality in professional practice including planning, improvement of performance and control of practicing outcomes.
CPHARM 606 BP	A7,11,12	8. Outlines tools to promote patient safety and prescribing, including electronic clinical record systems and other IT systems 9. Recognises the roles of regulatory agencies involved in drug use and licensing (e.g. National Institute for Clinical Excellence (NICE) Committee on Safety of Medicines (CSM), and Healthcare Products Regulatory Agency and hospital formulary committees	10. Knowledge related to environmental development, patient safety, safe occupational practice, serving communities and research results in improving public health outcomes.

ب – القدرات الذهنية :

المقررات التي تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS) Benchmark المعايير الأكاديمية لجامعة Royal colleges of the physician	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا (درجة الدكتوراة في الفارماكولوجيا الإكلينيكية)
CPHARM 606 GP CPHARM 606 BP CPHARM 606 CP	<b>B1,2,5,6,8, 11</b>	- Makes appropriate dose adjustments following therapeutic drug monitoring, or physiological change (e.g. deteriorating renal function)	1- Medical data analysis, interpretation and proper therapy choice.
CPHARM 606 CP	<b>B3,6,7</b>	- Develops a self-management plan with the patient	2- Medical problem solving and Evidence-based medicine.
CPHARM 606 BP	<b>B9,10</b>	- Applies for appropriate ethical research approval	3- Participation in research development and innovation.
		- Demonstrates the ability to write a scientific paper	4- Scientific paper reviewing.
CPHARM 606 GP CPHARM 606 BP CPHARM 606 CP CPHARM 606 PV	<b>B 4,5,8</b>	-Recognise the importance of basic science to an understanding of hypertension and cardiovascular risk - Recognises critical illness and responds with due urgency	5- Risk assessment in medical practice.

CPHARM 606 BP CPHARM 606 CP	<b>B6,8,11</b>	<ul style="list-style-type: none"> <li>- Shows an ability to learn from previous error</li> <li>- Conducts an assessment of the community needs for specific health improvement measure.</li> </ul>	6- Planning for improvement of professional performance in the field of clinical pharmacology. Residents are expected to develop skills and habits to be able to meet the following goals: (1) identify strengths, deficiencies, and limits in one's knowledge and expertise; (2) set learning and improvement goals; (3) identify and perform appropriate learning activities; (4) systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement; (5) incorporate formative evaluation feedback into daily practice; (6) locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems; (7) use information technology to optimize learning; and participate in the education of patients, families, students, residents and other health professionals.
			7- Decision making skill.
CPHARM 606 CP CPHARM 606 PG	<b>B9,10</b>		8- Development, innovation and medical breakthrough.
			9- Safety culture of medical practise.

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CPHARM 606 BP CPHARM 606 CP CHARM 606 PV	C1,4	<ol style="list-style-type: none"> <li>1. constructs and adjusts dose regimens correctly.</li> <li>2. Uses and interprets findings adjuncts to basic examination appropriately e.g. internal examination, blood pressure measurement, pulse oximetry, peak flow</li> <li>3. Anticipates and avoids defined drug interactions, including complementary medicines</li> <li>4. Advises patients (and carers) about important interactions and adverse drug effects</li> <li>5. Employs validated methods to improve patient concordance with prescribed medication</li> </ol>	<p>1- Professionalism and up to date practice. providing patient care that is compassionate, appropriate, &amp; effective for the treatment of health problems and the promotion of health. In this context; Residents must demonstrate a commitment to carrying out professional responsibilities &amp; an adherence to ethical principles. Residents are expected to demonstrate: (1) compassion, integrity, and respect for others; (2) responsiveness to patient needs that supersedes self-interest; (3) respect for patient privacy and autonomy; (4) accountability to patients, society and the profession; and,(5) sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.</p>
	C11	<ol style="list-style-type: none"> <li>6. Works with external strategy bodies around cases that should be reported to them; collaborates with them on complex cases preparing brief statements and reports as required</li> </ol>	<p>2- Medical report writing and evaluation/appropriateness of patient medical report.</p>
CPHARM 606BP CPHARM 606 CP	C2,4,8,10, 11,12	<ol style="list-style-type: none"> <li>7. Aims for best clinical practice (clinical effectiveness) at all times, responding to evidence-based medicine.</li> </ol>	<p>3- Ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.</p>
CPHARM 606 CP	C9	<ol style="list-style-type: none"> <li>8. Uses IT prescribing tools where available to improve safety</li> </ol>	<p>4- Effective use of IT and healthcare information system in medical practice and patient medical records to optimize learning; and participate in the</p>

			education of patients, families, students, residents and other health professionals
CPHARM 606 GP CPHARM 606 CP CPHARM 606 BP	<b>C2,3,9, 10,12</b>	<p>9. Reviews the continuing need for, effect of and adverse effects of long term medications relevant to the trainee's clinical practice</p> <p>10. Prescribes appropriately in pregnancy, and during breast feeding</p> <p>11. Makes appropriate dose adjustments following therapeutic drug monitoring, or physiological change (e.g. deteriorating renal function)</p> <p>12. Understanding of the importance of non-medication based therapeutic interventions including the legitimate role of placebos</p> <p>13. Where involved in "repeat prescribing," ensures safe systems for monitoring, review and authorisation</p>	<p>5- Planning for improvement of professional performance in the field of clinical pharmacology. Residents are expected to develop skills and habits to be able to meet the following goals.</p> <p>(1) identify strengths, deficiencies, and limits in one's knowledge and expertise; (2) set learning and improvement goals;</p> <p>(3) identify and perform appropriate learning activities; (4) systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement; (5) incorporate formative evaluation feedback into daily practice; (6) locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems; (7) use information technology to optimize learning; and participate in the education of patients, families, students, residents and other health professionals</p>
	<b>C5,6,7</b>	<p>14. Write trial protocols</p> <p>15. -Perform PD and PK studies in animals and human volunteers</p>	6-

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CPHARM 606 BP CPHARM 606 CP	<b>D5,6,7, 8,9</b>	<ol style="list-style-type: none"> <li>1. Appreciates the role of non-medical prescribers</li> <li>2. Remains open to advice from other health professionals on medication issues</li> <li>3. Recognises the benefit of minimising number of medications taken by a patient to a level compatible with best care</li> <li>4. Ensures prescribing information is shared promptly and accurately between a patient's health providers, including between primary and secondary care</li> </ol>	1- Interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals
CPHARM 606 BP CPHARM 606 CP	<b>D10,3</b>	5. Varies teaching format and stimulus, as appropriate to situation and subject.	2- Teaching and evaluation skills as senior staff.
		<ol style="list-style-type: none"> <li>6. Participates in adverse drug event reporting mechanisms</li> <li>7. Remains up to date with therapeutic alerts, and responds appropriately</li> </ol>	3- Self-appraisal and life-long learning.
CPHARM 606 CP CPHARM 606 BP	<b>D4</b>		4- Accessibility to specialty-specific and other appropriate reference material in print or electronic format. Electronic medical literature databases with search capabilities .
CPHARM 606 CP CHARM 606 PV	<b>D1,2,3</b>	8. Is aware of the importance of and takes part in multi-disciplinary teamwork, including adoption of a leadership role when appropriate but also recognising where others are better equipped to lead	9. Teamwork/leadership.
CPHARM 606 BP CPHARM 606 CP	<b>D10</b>	10. Recognises the importance of resources when prescribing, including the role of a Drug Formulary and electronic prescribing systems	11. Time management and meeting organization