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ORIGINAL ARTICLE

Competence development in undergraduate medical schools: a model with entrusted professional activities

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Abstract

Introduction*: Today´s relevant educational models emphasize that a great part of learning be situated and reflexive; one of those is the Entrusted Professional Activities model. The study objective was to develop a model that integrates Entrusted Professional Activities with a medical school curriculum.* **Methods:** *From October 2012 a multidisciplinary group met to develop a model with the specialty of obstetrics and gynecology. From two published models of Entrusted Professional Activities and the curriculum of a school of medicine, blocks, units, and daily clinical practice charts were developed. The thematic content of the curriculum was integrated with the appropriate milestones for undergraduate students and the clinical practice needed to achieve it.* **Results:** *We wrote a manual with 37 daily clinical practice charts for students (18 of gynecology and 19 of obstetrics) and 37 for teachers. Each chart content was the daily clinical practice, reflection activities, assessment instruments, and bibliography.* **Conclusions:** *It is feasible to combine a model of Entrusted Professional Activities with an undergraduate curriculum, which establishes a continuum with postgraduate education.* (Gac Med Mex. 2016;152:153-70)

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Introduction

For a medical student to become a professional, students and their patients, the faculty, the medical school, the university, health institutions and society have to make multiple efforts[1]. From the interaction between all these stakeholders, after great effort and time invested, a medical professional is obtained, who is capable of doing the things that characterize him/her as a physician, with minimal risks for patients[2]. Medical education current models emphasize on the following aspects:

- The physician's education should be guided by the activities that will characterize him/her as a professional[3].
- Most part of the learning process should take place in the setting where he/she will practice as a professional (outpatient clinic, hospital)[4-7].
- Clinical practice (CP) should generate reflection on the student's own performance and the learning

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processes, with guidance of the faculty members at the clinic[4,5].

– As a student manages to carry out the activities that characterize him/her as a professional, he/she should require less supervision, to the point of becoming an entrustable professional[8,9].

The Entrustable Professional Activities (EPA) conceptual framework brings the above described characteristics together; it has a clear relationship with the framework of competencies, outcome-based education and patient safety, and there are even several authors who claim that it is one step ahead towards "operationalization" of the most vague aspects of competencies[2,8,11]. An EPA is a competently-performed activity by physicians in a particular context, with no need for supervision (which makes them trustworthy), and that characterizes them as such; for example, gathering a history[2,10]. EPAs propose a gradual model, where the trainee goes through different levels of "trust", until he/she is really entrustable[2,8-11]. As part of the Outcome Project of the Accreditation Council for Graduate Medical Education (ACGME) of the USA, the EPAs for general practitioners who will be admitted in medical residencies have so far been published, as well as the EPAs for graduates of 79 specialties and subspecialties, with the goal of reaching 119 by November 2015[12]. This effort is also carried out in countries such as Australia and New Zeland[13]. With all this investment of energy to determine the goals of education (in this case the EPAs), it is possible to lose sight of the procedure to achieve them, o else that the mechanisms to attain them turn out being incompatible with the above-mentioned educational principles. The purpose of the present study was to develop an educational model to integrate the EPAs proposed by the Association of American Medical Colleagues (AAMC)[14] in the milestones of an ACGME specialty[15] with the dynamics of the healthcare centers and current programs of a medical school[15], within the frame of a broader model of medicine learning. The most outstanding attribute of this broader model, which has been described somewhere else, is that the student can rotate across multiple sites, in blocks that enable mobility, which homogenizes the quality of teaching[16].

Method

As of October 2012, a multidisciplinary group of researchers on medical education and medical students on community service gathered to develop an educational model that would harmonize undergraduate with postgraduate EPAs and shape them in the context of a medical school. The registry number of the project at the National Autonomous University of Mexico (UNAM – *Universidad Nacional Autónoma de México)* Research Division was 033-2013. Owing to its epidemiological relevance and its medical-surgical nature, the obstetrics and gynecology (Ob/Gyn) specialty was chosen for the development of the model. Based on literature on medical education, generic and Ob/Gyn-specific competencies were developed, which were validated by a group of faculty members from hospitals attended by undergraduate and postgraduate students. Since in September 2013 the ACGME milestones for Ob/Gyn[17] and in May 2014, the EPAs for medical residency aspirants in USA were made public[14], these models were chosen to carry on with the project, owing to their compatibility with the work developed within our group and because they were more complete.

The study was conducted at the UNAM Faculty of Medicine, which has approximately 7,000 enrolled students. Since 2010, a curriculum focused on competencies has been in force, which is divided in several consecutive phases: in the first one, biomedical sciences are predominant (four semesters); in the second, hospital work (three semesters); the third phase corresponds to the internship (two semesters), and the fourth, to the community service internship (two semesters). The Ob/Gyn curriculum has eight weeks morning or afternoon rotation assigned in hospitals on fourth year (ninth semester); by then, the student has already completed courses of anatomy, physiology and anatomic pathology (including the female reproductive system)[15].

The process was divided into three stages: the first one was to harmonize the current curriculum with the AAMC/ACGME models; the second, to design day-to-day activities to be fulfilled at the clinical sites, and the third, to create a matrix specifying the EPA and the milestone corresponding to each day of CP. The main purpose of this harmonization was not to add or suppress the contents of the school's current program. Topics that were separately reviewed for a common chief complaint were clustered, or concepts contained in CP standards and guidelines in force in the country were included whenever possible. Once grouped or integrated, the learning topics were aligned with the ACGME milestones and the degree of entrustability of that activity was defined for an eighth grade medical student. The second phase comprised the development of daily activities and was given the name clinical practice and reflection (CPR). For the design of the

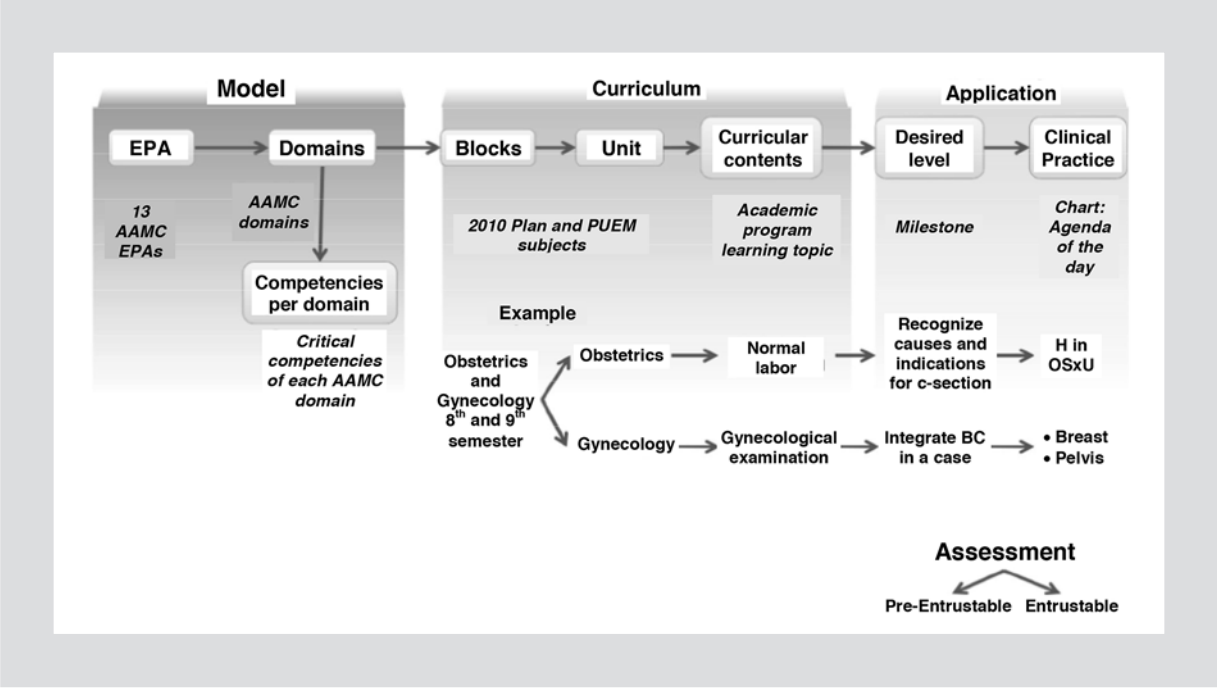

Figure 1. *MEDAPROC model. EPA: entrustable professional activities; PUEM* (Plan Único de Especialidades Médicas): *Medical Sciences Single Plan; BC: basic science; H in OSxU: history gathering at the Obstetric Surgery Unit.*

CPRs, the topics or groups of topics assigned to each day were used and specific learning objectives were generated for that day. Based on each objective, the area of care where such activity was more likely to be carried out was established. Whenever possible, the design of CP activities met the following aspects:

- It took place in the healthcare center area where a clinical event corresponding to the CP was more likely to occur; for example, if the CP corresponded to delivery, it was carried out at the obstetric surgery or delivery room.
- It integrated the student to the healthcare staff day-to-day tasks, generally in the role of an observer.
- It assigned tasks on which information had to be collected in a directed but not completely specific manner; for example, during the gynecology CPR assigned to screening for neoplastic conditions, the student was asked to collect risk factors for cancer, without providing him/her with complete information on which all those risk factors are.
- Two group reflection sessions, guided by the teacher, were programmed, to reflect on the clinical experience, with the highest degree of adherence to the following sections:
  - First session:
    a. Case: in this section, the group presents the information collected during their stay in the clinical areas, exactly as it was collected. Since all students have information, the teacher selects the most relevant to create a "script" of the disease or group of diseases to be treated on that day.
    b. Term clarification: the group proposes unfamiliar words or concepts.
    c. Representation of the problem: the group summarizes in medical terms and with the least possible number of words the case or cases being discussed on that day.
    d. Analysis: the group enumerates in detail all the collected data.
    e. Integration: the group classifies, hierarchically organizes, conceptualizes and schematizes the data listed in the analysis. This section requires very active participation of the teacher, which will decrease as the students master the method.
    f. Questions: the group hierarchically organizes the most relevant questions arising during clinical practice and in the reflection session on the subject. It identifies the topics to be studied for better understanding of that day's activity. A question proposing the role of the general practitioner on the care of the disease addressed each day is systematically introduced.

g. Independent study: the student answers individually, at home, the questions posed in the group activities and those occurring to him/her that have not been agreed in the group session. He/she studies the agreed topics, carries out the assigned tasks and, where appropriate, reformulates some steps. The scales to formatively assess each session are attached to the teacher's chart.

- Second session:

h. Feedback: at this session, which takes place the next working day, the student reports, on an individual basis, his/her answer to the questions generated on the preceding day and receives feedback on the subject. If the acquired knowledge requires any revision of previous phases (especially the integration phase), this is performed at this session. The student delivers and presents the assigned tasks.

The entire team of investigators participated in the design of the first 6-7 CPRs, until a consensus was reached on the previously described aspects. Then, the work was divided in two teams, one in charge of the Gynecology Unit and another of the Obstetrics Unit. During a period of approximately 6 months, the advances of each team were discussed every two weeks in 2-3 h sessions, where the necessary adjustments were made both to the model and to each CPR session, until final versions were reached, which were captured in a guide for the student and another for the faculty.

Results

The general diagram of the Educational Model to Develop Entrustable Professional Activities (MEDAPROC – *Modelo Educativo para Desarrollar Actividades Profesionales Confiables)* is shown in figure 1; in this article, we refer to the sections corresponding to curriculum and application. Table 1 summarizes the harmonization process in an agenda corresponding to the obstetrics and gynecology block. Details are given on the site where the CPR will take place, its name and the learning topic it corresponds to.

As a result of the second phase (the one corresponding to the design of day-to-day activities), a manual was written with 37 CPR daily charts for students (18 for the gynecology and 19 for the obstetrics blocks) and the corresponding 37 charts for the faculty. The EPAs of the AAMC model and the ACGME milestones proposed to be developed are specified on the header of each chart. Six charts failed to comply with the CPR general structure: one of them grouped integration and analysis in a single moment, two were put together with accumulated scenarios of the entire rotation, other was focused on applying a survey and two incorporated the integration process since the beginning of reflection. One chart was temporally associated with simulations already present in the Faculty of Medicine plan. In 24 charts, together with the independent study, the performance of complementary activities was required: development of quick-reference cards, prescription of medical recipes, Friedman curves, among others. The charts corresponding to the basic science sections within the program (anatomy, physiology, etc.), were the most difficult to achieve, given their low compatibility with situated practice.

Examples of a student and a faculty CRP chart are shown in Appendix 1 and 2, respectively.

Discussion

According to our search, this is the first published study to integrate the EPA model in a medical school program (i.e., undergraduate level) and match it to the competences per domain of a particular specialty (i.e., postgraduate level). Applying this model in a specialty would complete the continuum between undergraduate and postgraduate programs, as theoretically have proposed authors such as Dreyfus and Dreyfus[18].

Our study describes in detail a curricular process by stages, in order to obtain the highest theoretical correspondence between the models involved. The harmonization process implied great manipulation of contents, since in Ob/GyN current program, medical conditions are listed in a form resembling book indices, where comprehensiveness is attempted, but without the disease clinical presentation guiding the educational experience. The fact that most CPRs had a common design posed some complications, but it also made their creation easier, since it didn't demand deep knowledge on the educational theoretical benchmarks involved. The presence in the program of contents related to previous phases of the undergraduate curriculum (anatomy, histology and endocrinology, among others) represented a very particular challenge for the design of CPs, since they had little compatibility with situated and reflexive practice; the CRP charts that failed to comply with the proposed outline belonged to this type of contents.

The model proposed for CPs has great similarities with the problem-based seven-step learning model[19], but one of the greatest differences is that the source

Table 1. Ob/Gyn blocks agenda

Eighth semester undergraduate students Ob/Gyn block							
Units	**Week**		**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
General areas	1	Department	Classroom	Imaging	Operating room (OR)	Imaging	OR
		CRP	Introduction	Internal genitalia	Internal genitalia	Breast	Breast
		Topic	Bioethics 1	General topics 1	General topics 2	General topics 3	General topics 4
Obstetrics	2	Department	OR	Imaging	OD	OD	OD, H, OSxU and ED
		CRP	External genitalia and pelvic floor	Fetal development	Changes in pregnancy (1st trimester)	Changes in pregnancy (2nd and 3rd trimester)	Obstetric medical history
		Topic	General topics 5	Pregnancy 1	Pregnancy 2	Pregnancy 3	Pregnancy 4
	3	Department	OD	Classroom	OD, H and ED	OD, OSxU and ED	OD
		CRP	Prenatal control	Selected topics	UTI and cervicovaginitis	Obstetric hemorrhages	Hypertensive disease
		Topic	Pregnancy 5	Causes of obstetric morbidity and mortality and complications 1	Causes of obstetric morbidity and mortality and complications 2	Causes of obstetric morbidity and mortality and complications 3	Causes of obstetric morbidity and mortality and complications 4
	4	Department	OD, H and ED	OD and H	H	OSxU, ED and CECAM	
		CRP	Hypertensive disease	Diabetes	Threatened preterm delivery	Labor stages and mechanisms and Friedman's curve	
		Topic	Causes of obstetric morbidity and mortality and complications 5	Causes of obstetric morbidity and mortality and complications 6	Causes of obstetric morbidity and mortality and complications 7	Delivery 1A	Delivery 1B
	5	Department	OSxU	OD, H and OSxU	H and OSxU	OD, H and ED	OD
		CRP	Use of drugs and partogram management	C-section, dystocias, fetal distress, prolonged labor	Immediate puerperium	Mediate and late puerperium	Contraceptive methods
		Topic	Delivery 2	Abnormal labor	Postpartum period 1	Postpartum period 2	Family planning
Gynecology	6	Department	OD, H and ED	OD and H	OSxU and OD	OSxU and OD	OD
		CRP	Symptomatology and physical examination technique	History gathering and gynecologic examination	Diagnosis	Treatment	Diseases
Gynecology		Topic	Symptomatology and gynecologic examination technique 1	Symptomatology and gynecologic examination technique 2	Uterine hemorrhage 1	Uterine hemorrhage 2	Sexually transmitted infections 1

(Continue)

Table 1. ObGyn blocks agenda *(Continued)*

Eighth semester undergraduate students Ob/Gyn block						
Units	**Week**	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
	7	Department	OD	OD	OD	OD
		CRP	Diseases	Screening	Diseases	Diseases
		Topic	Sexually transmitted infections 2	Female reproductive system and breast benign neoplasms 1	Female reproductive system and breast benign neoplasms 2	Female reproductive system and breast malignant neoplasms 1	Female reproductive system and breast malignant neoplasms 2
	8	Department	OD	OD	Classroom	Final assessment	
		CRP	Climaterium	Sexology	Woman's reproductive and sexual rights in Ob/Gyn		
		Topic	Climaterium	Sexology	Bioethics 1		

OD: outpatient department; H: hospital; OSxU: Obstetrics Surgical Unit; ED: emergency department; CECAM *(Centro de Enseñanza y Certificación de Aptitudes Médicas)*: Center of Teaching and Medical Aptitudes Certification.

of reflection is not a case perfected by piloting and practice, but a clinical experience that is not entirely predictable; this is one of the most relevant characteristics of clinical teaching[20]. It remains absolutely clear that our model demands outstanding teaching skills, but it is necessary for these skills to be implemented in any clinical teaching model, not only in ours[20-23]. This is not the first time that a country's medical teaching model is adapted to be implemented in another; as a matter of fact, the Tuning project accounts for this in the European Union since several years ago and more recently in Latin America[24], and the Canadian competencies model (CanMEDS) has already been implemented in eight countries with different idiosyncrasies to that of Canada[25]. We don´t think we should implement a foreign model in our country, but we consider that medical education requires situated and reflexive practice and professional activities demonstration and, if among the models created by the AAMC and the ACGME there is agreement with our work, they are a possible option.

Our model has some weaknesses, with the main being that it has not been put into practice. It still has to be critically reviewed by specialists, part-time teachers, curriculum developers and students, among other stakeholders of the school where the model is intended to be applied. Considerable training of frontline faculty is also required, as well as a hospital system committed not only with implementation, but also with assessment, which restricts the number of venues where it can be implemented, although this requirement is uniform in any reflexive and situated practice clinical teaching model currently in use.

Based on this study, pilot tests can be run to put the model into practice and, in a given moment, consider its implementation in the setting where it has been designed without having to carry out a curricular reform. Eventually, if a CRP such as the proposed one is chosen, it is desirable for activities of this nature to be designed within the undergraduate internship or other areas of medical specialization with similar priority for public health.

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Annex 1. Student Guide

[GINECOLOGÍA Y OBSTETRICIA] 8 Semestre

Nombre del alumno:_____ **N° cuenta:**_____

Guía del alumno

Unidad

Obstetricia

Actividad Profesional Confiable	
Dominios	**Competencias por Dominio**
CP	
CCP	
ABPM	
HIC	
P	
PBS	
CIP	
DPP	

Tema:

Parto

Subtema:

1. **Trabajo y atención del parto: periodos del trabajo del parto, curva de Friedman y mecanismos del trabajo de parto.**

Nivel deseado (hito)

- Demostrar conocimiento básico de la atención del trabajo de parto normal; así como, reconocer los periodos, sus características clínicas y evolución.
- Describir las indicaciones médicas de acuerdo a las características clínicas de cada periodo de trabajo de parto

Práctica Clínica y Reflexión

Elaboración de Historia Clínica con enfoque obstétrico, curva de Friedman y nota médica tipo PSOAP.

Datos para reflexionar en la práctica

Esta actividad durará tres días y se desarrollará en el servicio de tococirugía y de urgencias obstétricas y en el Centro de Enseñanza y Certificación de Aptitudes Médicas (CECAM). El grupo se dividirá en equipos. El primer día de la actividad, a la mitad de los equipos se les asignarán una paciente tipo A, y a la otra mitad, una paciente tipo B; y en el segundo día, se invertirá el tipo de paciente que les tocará atender a cada mitad de equipo. Recuerda estar al pendiente de casos que involucren cuestiones éticas para trabajarlos en la última cédula.

En el CECAM se realizará la práctica “Maniobras de Leopold y atención de parto”, según la fecha asignada en el calendario del mismo.

Annex 1. Student Guide *(Continue)*

8 Semestre **[GINECOLOGÍA Y OBSTETRICIA]**

Reflexión en la práctica

En equipo deberán de recabar los siguientes datos, estableciendo una adecuada relación médico-paciente.

Paciente tipo A

- Nombre completo de la paciente:
- Expediente:
- Edad:
- Determinación de semanas de gestación:

- Signos vitales:

- Signos y síntomas:

- Exploración obstétrica:

- Características del (os) periodo(s):

Annex 1. Student Guide *(Continue)*

[**GINECOLOGÍA Y OBSTETRICIA**] 8 Semestre

Reflexión sobre la práctica
1. CASO
Lee al grupo los datos que recopilaste durante la reflexión en la práctica.
2. ACLARAR TÉRMINOS
Anota términos o abreviaturas desconocidas durante la reflexión.
3. REPRESENTACIÓN DE LA ACTIVIDAD CLÍNICA
Presenta a la paciente con el menor número de palabras posibles y con términos médicos dando los datos clínicos más importantes, como si presentaras a un paciente en el pase de visita.
4. ANÁLISIS
Escribe en forma de lista, los datos más relevantes de la paciente.

Annex 1. Student Guide *(Continue)*

8 Semestre	[**GINECOLOGÍA Y OBSTETRICIA**]

5. INTEGRACIÓN

Clasifica y jerarquiza los datos que enlistaron en el paso anterior según el orden de importancia para realizar el diagnóstico; después deberán de explicarlos.

6. PREGUNTAS

Con tu grupo plantea las preguntas más relevantes que surgieron durante la reflexión. Si existe alguna pregunta o duda que no se planteó en grupo y se relaciona con los casos que viste, anótala adicionalmente en esta sección. Determinen cuáles serán los temas que estudiarán para una comprensión más amplia de la agenda.

Preguntas grupales:

Preguntas adicionales:

7. ESTUDIO INDEPENDIENTE

Deberás de revisar los temas acordados para mayor comprensión del tema (paso 6). Si consideras necesario, podrás reformular la fase de integración (paso 5). Asimismo, realizarás una nota médica basada en el modelo PSOAP y una Curva de Friedman (Anexo 1).

8. REVISIÓN

Durante la primera hora de la siguiente sesión entregarás la nota médica basada en el modelo PSOAP y la Curva de Friedman, y las expondrás al grupo; posteriormente se integrarán al portafolio como evidencia para la evaluación formativa. Además, darás respuesta a las interrogantes planteadas.

Annex 1. Student Guide *(Continue)*

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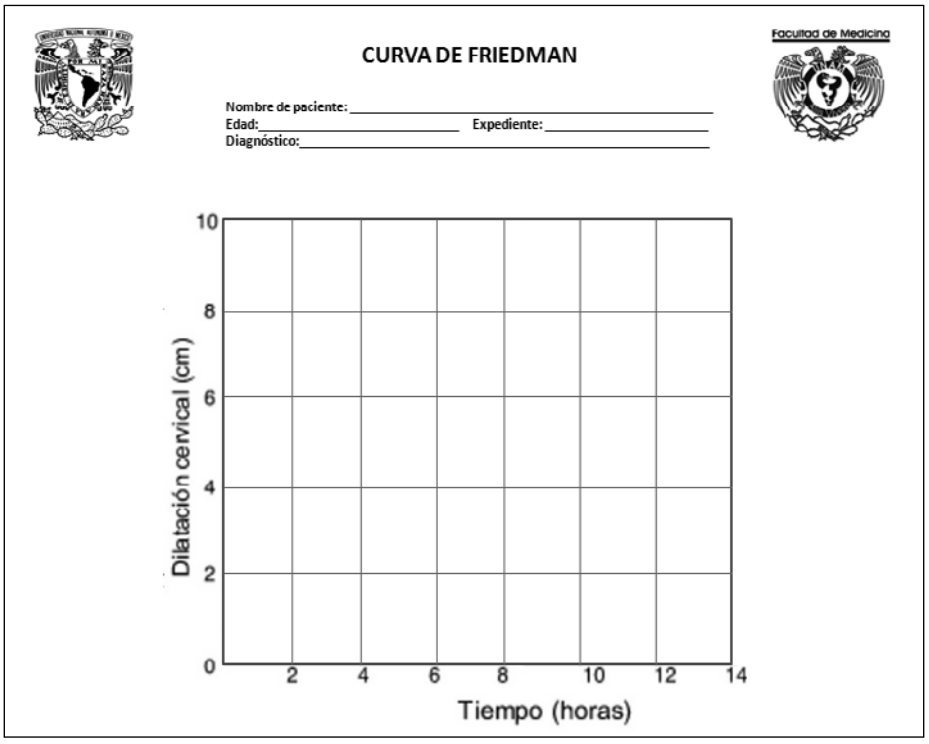
Elaborado por: Karina Robles-Rivera
Carlos Alberto Soto-Aguilera

Anexo 1. Guía del alumno *(Continuación)*

ANEXO 1



Annex 2. Teacher's Guide

[**BLOQUE GINECOLOGÍA Y OBSTETRICIA**] 8 Semestre

Guía del profesor

Unidad

Obstetricia

Facultad de Medicina

Actividad Profesional Confiable	1, 2, 4 y 6.
Dominios	**Competencias por Dominio**
CP	2, 4, 5 y 6
CCP	1, 2, 3 y 4
ABPM	1 y 7
HIC	1, 2 y 7
P	1, 3 y 5
PBS	3
DPP	4, 7 y 8

Tema:

Parto

Subtema:

1. **Trabajo y atención del parto: periodos del trabajo del parto, curva de Friedman y mecanismos del trabajo de parto.**

Nivel deseado (hito)

- Demostrar conocimiento básico de la atención del trabajo de parto normal; así como, reconocer los periodos, sus características clínicas y evolución.
- Describir las indicaciones médicas de acuerdo a las características clínicas de cada periodo de trabajo de parto.

Práctica Clínica y Reflexión

Elaboración de Historia Clínica con enfoque obstétrico, curva de Friedman, nota médica tipo PSOAP y nota de atención de trabajo de parto.

Agenda del día

Práctica

Esta actividad durará tres días y se desarrollará en el servicio de tococirugía y de urgencias obstétricas y en el Centro de Enseñanza y Certificación de Aptitudes Médicas (CECAM).

El grupo se dividirá en equipos. El primer día de la actividad, asignará a la mitad de los equipos a una paciente tipo A (que se encuentre en el primer periodo de trabajo de parto) y a la otra mitad de equipos le asignará una paciente tipo B (que vaya iniciar el periodo expulsivo); en el segundo día, se invertirá el tipo de paciente que le tocará atender a cada mitad de equipo.

Los equipos con paciente tipo A deberán de realizar una historia clínica con enfoque obstétrico, estableciendo una adecuada relación médico-paciente.

Los equipos con paciente tipo B fungirán como observadores durante la evolución del trabajo y atención del parto y anotarán los datos solicitados en la práctica. Posteriormente, recabarán los antecedentes gineco-obstétricos de la paciente en la sala

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de recuperación. Recuérdeles que deben estar al pendiente de casos que involucren cuestiones éticas para trabajarlos en la última cédula.
En el CECAM se realizará la práctica "Maniobras de Leopold y atención de parto", según la fecha asignada en el calendario del mismo.

Reflexión
Durante la sesión, los estudiantes revisarán, analizarán e integrarán, con su ayuda los datos obtenidos en la práctica.

Reflexión sobre la práctica

1. CASO

Seleccione de manera aleatoria a dos o tres equipos para que lean al grupo los datos que recopilaron durante la actividad. Se recomienda la lectura de pacientes tipo A y B.

2. ACLARAR TÉRMINOS

Solicite a los alumnos que anote términos o abreviaturas desconocidas, mismas que deberán de ser discutidos y aclarados durante la sesión. Motive al alumno a realizar preguntas.

Ejemplo: *¿Qué es la curva de Friedman?, ¿Qué es dilatación?, ¿Qué es borramiento?, etc.*

3. REPRESENTACIÓN DE LA ACTIVIDAD CLÍNICA

Solicite a los alumnos que presente a las pacientes con el menor número de palabras posibles y con términos médicos dando los datos clínicos más importantes, como si presentara a un paciente en el pase de visita.

Ejemplo: *Paciente femenino de 27 años de edad, 39.3 SDG por FUM, sin antecedentes de importancia, que el día de hoy a las 3:00 am comenzó con dolor en hipogastrio, intensidad 7/10*

4. ANÁLISIS

Solicite que escriban en forma de lista, los datos más relevantes de este caso.

Ejemplo:

39.3 SDG por FUM
Contracciones uterinas, intensidad 7/10
Dilatación de 4 cm
Borramiento de 60%

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5. INTEGRACIÓN

Solicite a los estudiantes clasificar y jerarquizar los datos de la lista anterior según la importancia para realizar el diagnóstico; después deberán de ser explicados.

Ejemplo:

Importancia para el diagnóstico
•Contracciones uterinas •Dilatación 4 cm •Borramiento 60%

6. PREGUNTAS

Solicite a los alumnos plantear las preguntas más relevantes que le surgieron durante la práctica y reflexión, y mencionar alguna cuestión que no se planteó y se relacione con los casos. Además, en grupo deberán determinar cuáles son los temas necesarios para mayor comprensión de la actividad clínica.

Los objetivos mínimos se pueden cubrir al plantear las siguientes preguntas:

1. ¿Cómo sabemos que comenzó la paciente con trabajo de parto?
2. ¿Cuáles son las características de los periodos del trabajo de parto?
3. ¿Cuándo el parto no es normal?
4. ¿Qué le corresponde atender al médico general y qué no?

7. ESTUDIO INDEPENDIENTE

Una vez finalizada la sesión, los estudiantes revisarán los temas acordados para mayor comprensión de la actividad del día, si se considera necesario, podrán complementar o modificar el paso 5. Además, deberá de solicitar a los equipos con paciente tipo A elaborar una nota médica basada en el modelo PSOAP (Anexo 1) y curva de Friedman (Anexo 2); a los equipos con paciente tipo B solicitará la elaboración de una nota de atención del parto (Anexo 3).

8. REALIMENTACIÓN

Durante la primera hora de la siguiente sesión, los alumnos darán respuesta a las preguntas del paso 6. Se solicitará a los alumnos la entrega de la nota médica basada en el modelo SOAP, curva de Friedman y la nota de atención del parto y se elegirán algunos para su realimentación; posteriormente se integrarán al portafolio como evidencia para la evaluación formativa. Si es necesario, se aclarará algún punto de la integración, paso 5.

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4. Scott J. Tratado de Obstetricia y Ginecología de Danforth. Novena ed. Editores I, editor. México: McGraw Hill; 2005.

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5. Secretaría de Salud. NOM-007-SSA2-1993. Para la atención de la mujer durante el embarazo, parto y puerperio y del recién nacido.

Elaborado por: Karina Robles-Rivera
Carlos Alberto Soto-Aguilera

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ANEXO 1

Facultad de Medicina

NOTA DE ATENCIÓN MÉDICA

Nombre: Juanita Pérez Reyes **Edad**: 25 años

Expediente: JPR25 **Fecha**: 03/06/14 **Hora**: 3:10 hrs.

P: Paciente femenino de 25 años de edad con el diagnóstico de 39.5 semanas de gestación por fecha de última menstruación, gesta 1, parto 0, cesárea 0, aborto 0. Sin antecedentes de importancia.

S: presenta a la consulta de urgencias que refiere desde hace 3 horas dolor abdominal en hipogastrio, tipo cólico, intensidad 6/10, 3 contracciones cada 10 minutos, sin salida de líquido transvaginal ni sangrado. Refiere percibir movimientos fetales.

O: Signos vitales: TA 125/80 mmHg FC 98 x' FR 20 x' Temp 36.8°C

A la exploración física se encuentra paciente alerta, orientada, conciente en las 3 esferas, con adecuado estado de hidratación y coloración de mucosas y tegumentos. Cráneo normocéfalo, ojos isocóricos, isométricos y normoreflecticos. Cuello cilíndrico sin ingurgitación yugular ni soplos carotídeos, no se palpa glándula tiroides. Área precordial con ruidos cardiacos rítmicos, intensos, sin soplos ni desdoblamientos patológicos. Auscultación pulmonar con pulmones bien ventilados, murmullo vesicular adecuado, sin ruidos agregados. Abdomen globoso a expensas de útero gestante, fondo uterino de 36 cm. Situación longitudinal, posición derecha y presentación cefálica. Frecuencia cardiaca fetal de 140 latidos por minuto. A la exploración ginecológica con vello púbico con distribución ginecoide, labios mayores cubriendo labios menores, introito vaginal de 2 cms, paredes vaginales sin alteraciones aparentes, cérvix anterior, consistencia blanda, dilatación de 2 cms, borramiento de 30%, sin salida de líquido transvaginal ni presencia de sangrado.

A: Paciente con embarazo a término, de 39.5 SDG por FUM, que se encuentra en fase latente de trabajo de parto.

P: Se le indica a la paciente egreso a hogar, con los siguientes datos de alarma: sangrado o salida de líquido transvaginal, no percepción de movimientos fetales, aumento del número de contracciones e intensidad, dolor de cabeza intenso, zumbido de oidos. Se deja cita abierta a urgencias las 24 horas.

Dr. _____

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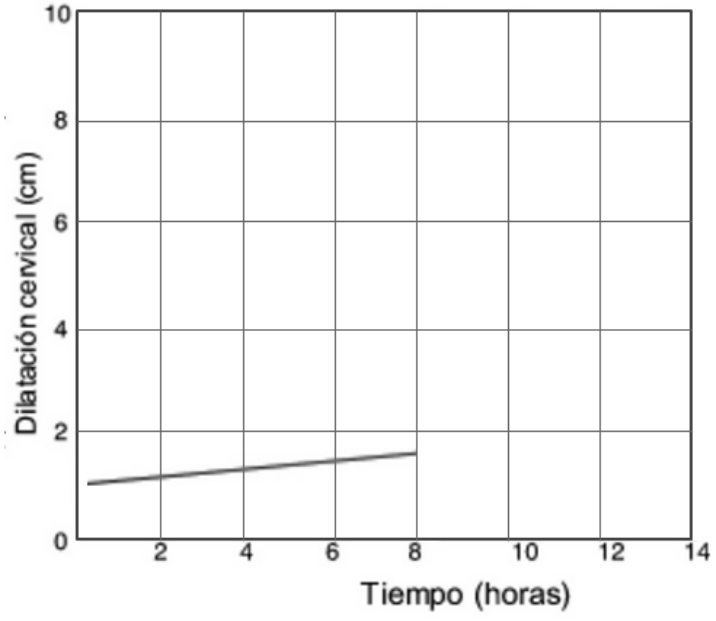
ANEXO 2

Facultad de Medicina

CURVA DE FRIEDMAN

Nombre de paciente: Juanita Perez Reyes
Edad: 25 años **Expediente:** JPR25
Diagnóstico: Embarazo de 39.6 SDG por FUM + PUVI + Trabajo de parto en fase latente



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ANEXO 3

Facultad de Medicina

NOTA DE ATENCIÓN DE PARTO

Nombre: Juanita Pérez Reyes **Edad**: 25 años

Expediente: JPR25 **Fecha**: 03/06/14 **Hora**: 13:10 hrs.

Diagnóstico: Puerperio inmediato

Signos vitales: TA 125/80 mmHg FC 98 x' FR 20 x' Temp 36.8°C

Características de la paciente: Paciente de 25 años, gesta 1, quien se encontraba en conducción de trabajo de parto, se valora encontrándose dilatación y borramiento completos completos, por lo cual pasa a sala de expulsión para atención de parto.

Sala de expulsión:

- Inicio: Se coloca en posición de litotomía, se realiza asepsia y antisepsia de región vaginal y perineal, se realiza vaciamiento vesical con sonda y se colocan campos estériles.
- Obtención del producto: Se obtiene producto (m/f), al cual se le aspiran secreciones, se pinza y corta cordón umbilical, y se pasa a pediatría para su atención.
- Alumbramiento: Se completa alumbramiento dirigido a las 14:05 hrs. por método de (Schultze/Duncan).
- Fin: Se realiza revisión profiláctica de cavidad uterina sin restos membrano/placentarios. Se realiza revisión vaginal, se corrobora hemostasia y se da por terminado acto obstétrico.

Producto: Sexo (m/f), Peso 3.210 kg, Talla 51 cm, APGAR 9/9, Capurro 39.5, Hora de nacimiento 15:04 hrs.

Episiotomía: (lateral/mediolateral).

Fórceps: No **Motivo**: _____

Sangrado aproximado: 200 ml **MPF**: Ninguno

Complicaciones: Ninguna

Dr. _____