

### D.2.1. Paediatric cases modified



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**TAME**

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### D.2.1 Paediatric cases modified

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1. The first difficulty in adapting is called «abbreviations in English». It took more time to search for description. All abbreviations must be either written on page 1, or should be described for the first time. For example: DCT- direct Coombs test, Urine MSU- Midstream Specimen of Urine (MSU) Gbs- Group B streptococcal infection.....	<b>32</b>
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1. The first difficulty in adapting is called «abbreviations in English». It took a little time to search for description. But after all, we have found it on internet and translate it in the same meaning in Vietnamese clinical words.....**35**
  2. There are some differences in health care system in Vietnam and other country, such as it's usual in England a family doctor takes care for some patient and there's a good informative connection between experts of clinical hospitals and family doctors, bt in Vietnam health care system does not work so well. We don't have sharing information formally between doctor of hospital and family doctor. We also don't have community midwife or doctor to visit neonate regularly as in England. So in the case adaptation if we remain the original version, students may not familiar and burning questions, so all social – economical should be changed according to Vietnam healthcare context..... **35**
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## 1. INTRODUCTION:

This deliverable report describes how the Partner country Institutions translated, adapted, modified and re-purposed paediatric cases to local (Ukraine, Russian, Vietnamese) languages. Each Partner country university (PCU) created working groups from the appropriate departments for translation (with good English language knowledge), and in adaptation (staff who are content persons) to local the healthcare system. Translated paediatric cases on medical error were repurposed, reconsidered and adapted to local healthcare culture. Adaption included changing names, events, hospital names, geographical location, adding images, clinical details etc. PCU should insure that cases reflect their local healthcare culture and needs.

## 2. ADAPTATION OF PAEDIATRIC CASES TO THE LOCAL CULTURE AND LOCAL LANGUAGE

### 2.1. 2.1 Kazakhstan

#### 2.1.1. AMU

Taking into account the recommendations of trainer Dr. Ella Iskrenko, the AMU team set up a special working group on adaptation and translation of cases which was led by Nurpeissova R. G. The working group included clinicians, pediatricians of the University in the amount of 4 people (the entire group is 5 members). For translation and adaptation of paediatric clinical cases based on Medical Error (ME) Partner Universities from Kazakhstan distributed SGUL cases between KSMU and AMU, 4 cases for AMU and 2 for KSMU. It was also agreed to provide cases to each University for peer-review. The cooperation of both Kazakhstani Universities helped to adapt the cases to the local culture more effectively. The working group had training to improve skills for working in Open Labyrinth. Total 4 pediatric clinical cases were implemented into Open Labyrinth. AMU installed the .3.1 OpenLabyrinth version on a server with the operating system Ubuntu 14.04 server at <http://olab.amu.kz>. OL3 is available for use only for internal network of University. The working group (teachers who were responsible for adaptation) reviewed each case. The cases were distributed among the members of the working group. Duration of adaptation and translation was approximately 2,5 hours a day during 1,5 months for translation and adaptation of 4 cases.

Discussions took place in order to consider: differences in the health system, the stages of care delivery, the correspondence with national diagnostic and treatment guidelines based on pediatric

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guidelines, also to compare with WHO guidelines based “Integrated Management of Childhood Diseases” which was implemented in our pediatric curriculum for medical students. Also the group paid attention on such things as: terminology, name and surname of the patients, communications skills, due to traditional cultures, peculiarities of physical examinations of patients, team working (reanimatological team or intensive care unit team), and approach to patients. The adaptation process of cases considered 4 basic aspects:

- Ethnical aspects
- Language aspects
- Socio-economical and geographical aspects
- Professions and disciplines (the differences in hospitals of the countries in the terms of guidelines and procedures, roles of the doctors and nurses).

Table 1 shows the pediatric cases which were adapted to the above mentioned aspects.

**Dominic Barton - Dauren Bekov**

The original	After adaptation	Comments	Aspects of adaptation
<b>Dominic Barton</b>	<b>Dauren Bekov</b>	ethnic Kazakh name	ethnic
You are the neonatal trainee	You are the resident doctor	Residents have the right to treat patients under the supervision of doctor	Professions and disciplines  In Kazakhstan neonatal trainee is a resident or junior doctor, whom not able to work independently, he (she) works under supervision senior doctor
Respiratory: RR 60/min, moderate subcostal recession, tracheal tug. Inspiratory crackles in all areas. Cardiovascular: HR 155/min, warm and pink/blue hands and feet, BP 75/35, Heart sounds normal, no added sounds.	Respiratory system: RR 60/min, moderate subcostal recession, tracheal tug. Hard breathing, inspiratory crackles in all areas.  Cardiovascular system: Heart rate of 155 per minute, with cyanosis of hands and feet, blood pressure 75/35 mm Hg, cardiac activity is rhythmic, loud tones, no added sounds.	An objective examination of systems are described in detail on every organ, indicating localization and ubiquitous lesion body.	Socio-economical and geographical

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TSH	2.1 mU/L	thyroid stimulating hormone 2.1 mU / L	it is difficult to translate the abbreviation of laboratory parameters	Language aspect
DCT	negative	The test for sensitivity to antibiotics - negative		
Urine MSU	negative	sample Nechiporenko - negative		
You are thanked at the end of your shift and leave the unit.		You finish the night shift and leave the hospital.		Language aspect

#### Jack Horner –Dulat Khamitov

The original	After adaptation	Comments	Aspects of adaptation
<b>Jack Horner</b>	<b>Dulat Khamitov</b>	ethnic Kazakh name	ethnic
You are the Doctor looking after the children's area in Accident and Emergency. You are called urgently to see an 11 month old boy who's parents have brought him because they were worried about his breathing. (from "Stage 1")	Admitting physician of children hospital (regional, republic or another)	Ill children in Kazakhstan are firstly seen in the attending room by pediatrician doctor	Professions and disciplines
You prescribe some adrenaline via nebulizer and this is given to Jack. ("from Nebulized adrenaline")	Adrenaline (epinephrine) is used locally as inhalations via nebulizer	We don't have adrenaline in nebulas in Kazakhstan. We use adrenaline (epinephrine) 0,18% for i/v route	Socio-economical and geographical Nebulized adrenaline use is controversies – in national protocol there is no instructions regarding adrenaline via nebulizer, however according to Integrated Management Of Childhood Illness (IMCI) it can be used (but again, dosage and concentration of foreign adrenaline is supposed to be 2,25%, whereas we have 0,18% solution)

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<p>One hour later he is deteriorating again and you decide to call the team from paediatric intensive care who attend quickly. They review him and note also the normal radiograph. (“from Nebulized adrenaline”)</p>	<p>Physician from the intensive care unit</p>	<p>The doctor can call for the intensive care unit and physician to see a child in the in-patient department.(hospital)</p>	<p>Professions and disciplines</p>
<p>You prescribe the dexamethasone and site a cannula.( from “Consultant review”)</p>	<p>Doctor prescribes setting venous catheter</p>	<p>It’s the staff nurse who sets a venous catheter to the sick child after the doctor has prescribed it.</p>	<p>Professions and disciplines</p>
<p>In clinical case: nurse is making triage of patients and giving paracetamol</p>	<p>Doctor in attending room is making triage</p>	<p>in Kazakhstan nurse is not allowed to do triage and give any drugs to patients, therefore we revised and adapt clinical cases, according to our health care system</p>	<p>Socio-economical and geographical The system of emergency care in hospitals slightly different. Thus, in the proposed case, patients have the opportunity to stay 2-3 days in the emergency room in order to clarify the diagnosis. Such situation is impossible for our patients. We do not have beds for further diagnosis of our patients in the emergency room of the hospitals, patients referred to specialized hospital departments</p>
<p>You contact the pediatric respiratory team</p>	<p>You called children pulmonologist</p>	<p>Usually our doctors are subdivided according to specialties and they are working as consultant for several departments, and mostly they work individually. If talking about respiratory team – it would belong to intensive care unit doctors (Additionally – in Kazakhstan only surgeons and intensive care unit doctors are allowed to conduct bronchoscopy, not as in foreign countries - regular</p>	<p>Professions and disciplines</p>

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		pulmonologist).	
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#### Rory Gallagher- Ramazan Galimzhanov

The original	After adaptation	Comments	Aspects of adaptation
Rory Gallagher	Ramazan Galimzhanov	Ramazan Galimzhanov is ethnic Kazakh name	ethnic
Boyfriend (...it was a surprise for her and her <b>boyfriend</b> but she was very pleased...)	Husband	In our country due to wide dissemination of Islam, especially among native population, open marriages are not common.	ethnic
Attending paediatric trainee	Resident pediatrician	After graduation in Kazakhstan all doctors should have residency in the chosen field	Professions and disciplines
Diazepam <i>per rectum</i> (...attached monitoring and administer <b>diazepam per rectum.</b> )	Intramuscular Relanium	Diazepam is sold under commercial name of Relanium in Kazakhstan, if there is no venous access during the emergency procedure, the drug administration way is intramuscular	Professions and disciplines
The Emergency Department (ED) (You call the paediatric doctors at the local hospital and they agree to see him in the <b>emergency department</b> (ED).)	Admissions office	The first emergency medical aid will be given in an admissions office and after the triage the patient will be admitted to the relevant department	Professions and disciplines
Cefotaxim (You prescribe some <b>cefotaxime</b> and arrange a CT scan...)	Cefuroxime	Among Cephalosporines Cefuroxime is usually used as an agent of choice for the empiric therapy, because most of Kazakhstani hospitals are supplied with Cefuroxime	Professions and disciplines
Resuscitation area (You are called urgently to the <b>resuscitation area</b> ...)	Intensive therapy room	There is no special space in the Admissions Office for resuscitation. The most closest is intensive therapy room, which is located in the admissions office.	Professions and disciplines
Resident's duties ( <b>You</b> remove the lumbar puncture needle and call the arrest team)	Supervisor has told you to remove the lumbar puncture needle and call the arrest team	In our country resident doctor is not eligible for carrying out such procedure as lumbar puncture by him/herself, only under supervision of more experienced colleague.	Professions and disciplines
High dependency unit/ intensive care unit (He is seen by the anesthetists and admitted to the <b>high dependency unit</b> )	Intensive care unit	In Kazakhstan there is no separate departments as high-dependency and intensive care units, there are combined	Professions and disciplines



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Electronic images (The radiograph is going to be reported, but is also available <b>electronically</b> .)	And image will be printed out and sent to you as soon as possible	Not many hospitals in Kazakhstan are equipped with PACS and that is why it's very unlikely doctor can access image electronically	Socio-economical and geographical
Ward stuff (...give instructions to the <b>ward staff</b> )	Give instruction to the ward nurse	Most times ward stuff consists only from one nurse	Professions and disciplines
Oral Amoxicillin (You prescribe <b>oral Amoxicillin</b> for Rory's chest infection...)	Amoxiklav	If the doctor decided to prescribe an anti-infective drug orally it is usually an Amoxiclav for children under 3 years of age	Professions and disciplines

#### Bella – Balzhan Bolatova

The original	After adaptation	Comments	
<b>Bella</b>	<b>Balzhan Bolatova</b>		ethnic
Her initial scan at 17 weeks was reported normal, as was a subsequent scan at 22 weeks. (from "Review baby with jaundice, Review baby with poor feeding")	Her initial scan at 17 weeks was reported normal, as was all subsequent scan.	Principles of outpatient management of pregnant women in Kazakhstan (for example, pregnant woman came late for inspection in the 17th week and routinely inspected only 22 weeks, for a total of 2 inspection and we have a pregnant comes about 7-8 times, and on the initial terms on average 1 time per month, in the later stages 1 every 3 months and before delivery is generally about 1 times per week (22, 26, 30, 33, 36 weeks).	Socio-economical and geographical
She has attempted to be bottle fed, but has taken around 20ml milk in total since birth. (from "Review baby with jaundice, Review baby with poor feeding")	The baby has attempted to breastfeed, but has taken around 20ml milk in total since birth.	according to our protocol	Socio-economical and geographical
prostaglandin infusion at 5 nanograms/kg/minute, with a view to increasing to 10 nanograms/kg/minute if baby's condition fails to improve. The target oxygen saturations should be between 75-85%. (from "Prostaglandin")	prostaglandin infusion at 0,01 - 0,02 micrograms/kg/minute, with a view to increasing to 10 nanograms/kg/minute if baby's condition fails to improve. If there is no effect (no growth in the level of oxygen saturation, acidosis, according to the analysis of blood acid-base balance) incrementally increase the dosage by 30-50% every 20 minutes until the target parameters. The target oxygen	different drugs dose (for example, in the administered prostaglandin nanogram 5 / kg / min., in our country 0.01-0.02 g / kg / min., And then Bella's dosage increases to 10 in the absence of effect, in Kazakhstan increased by 30-50% under the control of blood acid-base balance with no effect)	Professions and disciplines

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	saturations should be <70% lactic acidosis in the absence (value lactate <2 mmol / L).		
Bella is transferred to the cardiac referral centre, (“from Prostaglandin”)	The baby was examined according to the protocol, Bella is transferred to the cardiac referral centre.	Principles of patients care: (for example, in the case of Bella girl with a heart defect is sent to the cardiac center with minimal check up, in the Republic of Kazakhstan in the list of mandatory laboratory testing wider).	Socio-economical and geographical
Registrar	The curator of the residents	The curator is the person under whose supervision the resident makes all manipulations. The RK has not position such as registrar.	Professions and disciplines

### 2.1.2. KSMU

The first step of adaptation of 6 paediatric cases was the organization of a working group, which focused on translation, adaptation and revision of the cases. The core members of the working group included 6 teachers from Paediatric and General Practice Departments. The work on these 6 paediatric cases was divided between KSMU and AMU. 4 cases (Dominic Barton, Jack Horner, Rory Gallagher, Bella) were translated and adapted by AMU team and then reviewed by KSMU team. Other 2 cases (Charley, Davina) were translated and adapted by KSMU team and then reviewed by AMU team. The paediatric cases were translated from English into Russian language and then adapted taking into account special aspect of local culture of Kazakhstan.

The next step was distribution of these cases between members of the working group in 3.1 OpenLabyrinth for further translation. For understandable and efficient adaptation and translation of the cases the following main aspects were taken into consideration: differences between British and Kazakhstan healthcare systems; specifics of diagnostics and medical treatment based on clinical guidelines; terminology and definitions; personal data of patients; differences in functional duties of medical staff; matching of medicines; cultural distinctions.

#### Davina - Дарина

The original	After adaptation	Comments	Aspects of adaptation
Davina	Darina	ethnic Kazakh name	ethnic
the doctor running the neonatal follow up	GP is responsible for admission of the child population in	In Kazakhstan infants after discharge from maternity unit are	Area or responsibility of medical professionals/specialists

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clinic	the clinic	observed by General Practice doctors in community hospitals, there are no neonatal clinics	
neonatal clinic	clinic	In Kazakhstan infants after discharge from maternity unit are observed by General Practice doctors in community hospitals, there are no neonatal clinics	Area or responsibility of medical professionals/specialists
Scan(Early scans normal and anomaly scan normal)	Ultrasound Examination	In Kazakhstan, ultrasound examination were given for all pregnant women	Area or responsibility of medical professionals/specialists
Dopplers (Abnormal Dopplers identified at 30 weeks)	Ultrasound Examination	In Kazakhstan, ultrasound examination were given for all pregnant women	Area or responsibility of medical professionals/specialists
Antenatal clinic(Poor growth identified at 26 weeks and seen in antenatal clinic weekly since)	At obstetrician-gynecologist in community clinic	In Kazakhstan, pregnant women are monitored by obstetrician-gynecologists in community clinics, there are no individual prenatal (women's centers) clinic	Area or responsibility of medical professionals/specialists
Auxology(Auxology: weight 1.62 Kg, length 47 cm, head circumference 31.5	Anthropometry	In Kazakhstan, the concept of anthropometry is often used when specifying	Area or responsibility of medical professionals/specialists

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The original	After adaptation	Comments	Aspects of adaptation
<b>Charlie</b>	<b>Chinara</b>	Ethnic Kazakh name	Ethnicity
You are junior pediatric trainee	You are resident	Residents have the right to treat	Area or responsibility of medical professionals/specialists

cm)		anthropometric data	
dysmorphic (does not look dysmorphic)	Disproportional	Disproportional	Medical Terminology
Clinic room	Patient room	In Kazakhstan hospitals, there is no such unit as "clinical room"	Adaptation according to our medical staff qualifications

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		patients under the guidance of a doctor	
The seizures settle on phenytoin	Injection of seduxen	Injection of seduxen is the effective initial therapy of seizures	In Kazakhstan, according to the clinical protocol of treatment and diagnosis using seduxen as the effective initial therapy of seizures is the optimal treatment option.
Your shift has ended and you go home.	Your shift is over and you go home.		Language aspect
Neonatal secretary	Nurse of Neonatal Unit	There is no such staff as Neonatal secretary	Adaptation according to our medical staff qualifications

Charlie - Chinara

## 2.2. Ukraine

### 2.2.1. ZSMU

Taking into account the recommendations of trainer Dr. Ella Iskrenko, ZSMU team set up a special working group on adaptation and translation of cases which was led by Kostrovskii A.M. The working group included clinicians, pediatricians of the University in the amount of 4 people (the entire group is 5 members). The working group had training to improve skills for working in Open Labyrinth. Total 6 pediatric clinical cases were implemented into Open Labyrinth. OL3 is available for use only in the internal network of University. The working group (teachers who were responsible for adaptation) reviewed each case. The cases were distributed among the members of the working group. Duration of adaptation and translation was approximately 2,5 hours a day during 2 months for translation and adaptation of 6 cases.

After translation and adaptation of paediatric clinical cases based on Medical Error (ME) Ukrainian PUs exchanged cases for the review: 6 cases for each university. The cooperation of both ZSMU and BSMU facilitated the adaptation of cases to the local culture.

Discussions took place in order to consider: differences in the health system, the stages of care delivery, the correspondence with national diagnostic and treatment guidelines based on pediatric

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guidelines, also to compare with WHO guidelines based “Integrated Management of Childhood Diseases” which was implemented in our pediatric curriculum for medical students. Also the group paid attention on such things as: terminology, name and surname of the patients, communications skills, due to traditional cultures, peculiarities of physical examinations of patients, team working (reanimatological team or intensive care unit team), and approach to patients. The adaptation process of cases considered 4 basic aspects:

- Ethnical aspects
- Language aspects
- Socio-economical and geographical aspects
- Professions and disciplines (the differences in hospitals of the countries in the terms of guidelines and procedures, roles of the doctors and nurses).

#### Bella - Iulia Ognevych

The original	After adaptation	Comments	Aspects of adaptation
Name: Bella	Iulia Ognevych		Ethnic
Emergency department (ED) (You are an FY1 doctor covering the paediatric wards and the emergency department (ED)...)	Admissions office or resuscitation department	depends on situation: doctor at the admissions office and patient in the resuscitation department	Professions and disciplines
She was born at <b>40+3 weeks</b> with a birthweight...	43 weeks	In Ukraine it's summarily 43 weeks	Professions and disciplines
Vaginally (Bella was born vaginally following...)	Born naturally		
Benzympenicillin and gentamicin (She is started on <b>benzylpenicillin and gentamicin</b> and given...)	Augmentin and Amikacin	According to Ukrainian rules in neonatology combination of augmentin and amikacin is prescribed	Professions and disciplines
Bottle fed ( <i>She has attempted to be <b>bottle fed</b>, but...</i> )		According to the national protocols a newborn must be latched on (if there are no counter indications – Apgars no less than 8) and should be breastfed further on	Socio-economical and geographical

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Blue peripheries ( <i>Blue lips and peripheries...</i> )	Acrocyanosis	In Ukraine the term <i>acrocyanosis</i> is used	Professions and disciplines
Sedated on morphine infusion	Seduxen	Morphine is not used in paediatrics. Seduxen is used in Ukraine	Professions and disciplines

#### Charlie – Mariia Nikolaenko

The original	After adaptation	Comments	Aspects of adaptation
You decide to refer Charlie to <b>the surgical team</b> (from “Surgical Referral”).	Surgeon	A doctor can call a surgeon from the paediatric surgery unit to see a child in the patient-department.	Professions and disciplines
You request an urgent abdominal ultrasound and after around 30 minutes Charlie is taken to <b>the radiology department</b> (from “Abdominal ultrasound”).	Department of diagnostics	In Ukraine a term “the diagnostics department” is commonly used as “the radiology department” is a department of clinical unit of oncologic dispensary or hospital where the patients are cured by the sources of ionizing radiation	Professions and disciplines
After sending her to ultrasound, the <b>radiologists</b> rapidly identified an intussusception in her right hypochondrium (from “Ultrasound abdomen”).	Ultrasonic medical investigation specialist	A radiologists diagnoses a case by means of X-Rays, he deals with ultrasonic diagnostics as well. But in Ukraine the position of Ultrasonic medical investigation specialist is mostly taken by a person who has completed a course of primary specialization just of ultrasonic medical investigation.	Socio-economical and geographical
<b>The arrest team</b> were called, and the radiologists started CPR (from “Ultrasound abdomen”).	Emergency physician from the intensive care unit	The doctor can call for the emergency physician from the intensive care unit to see a child in the in-patient department.	Professions and disciplines
<b>The surgeon looks impressed</b> and the	The surgeon looks reflective...	The surgeon was thinking over the best therapy for the child.	Language aspect

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specialists discuss how they are going to reduce the intussusception – by open procedure or using an air enema (from “Abdominal ultrasound”).			
More advanced cases will not be reduced in this way, and <b>an open operation</b> will need (from “Commentary”).	Operation, surgical interference	The terms “operation” or “surgical interference”.	Professions and disciplines
Once identified, an (early) intussusception can be managed with <b>an air enema</b> – physically pushing the bowel back into its correct position (“Commentary”).	Enema with air	The term “enema with air” is commonly used in Ukraine.	Socio-economical and geographical
She will need some <b>intravenous fluid</b> in the meantime so she does not become dehydrated (from “Surgical Referral”).	Infusion therapy	The term “infusion therapy” is commonly used in Ukraine.	Socio-economical and geographical
Start <b>supplements</b> before follow up in clinic (from “Start supplements before follow up in clinic”)	Vitamins and microelements	Certified vitamins and microelements are used for treating children in Ukraine.	Socio-economical and geographical
The redcurrant <b>jelly</b> stool occurs after <b>infarction</b> (from “Commentary”).	Necrosis of the bowel wall	The term “necrosis of the bowel wall” is more commonly used.	Socio-economical and geographical
It is now <b>36 hours</b> since her laparotomy and resection of bowel... After consultation with the consultant you <b>prepare to discharge her</b> (from “On the	«Give the child to the parents upon receipt»	They cannot officially discharge the patient after 36 hours in Ukraine, but parents can take the child upon receipt, and the doctor will write a note that “the child is taken at the parents’	Socio-economical and geographical



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ward”).		insistence (the parents have taken the child home)”).	
You explain the plan <b>to the nursing staff</b> and to the mother... <b>The nurses</b> say that she has passed a blood, mucousy stool (from “CT abdomen”).	The nurse, ward nurse	Usually there is only one (ward) nurse attached to one patient.	Professions and disciplines

#### Jack Horner – Jenia Kharchenko

The original	After adaptation	Comments	Aspects of adaptation
You are the <b>Doctor looking after the children’s area in Accident and Emergency</b> . You are called urgently to see an 11 month old boy who’s parents have brought him because they were worried about his breathing. (from “Stage 1”)	Admitting physician of child health clinic	Ill children in Ukraine are firstly seen by the admitting physician of the child health clinic when admitted to the clinic.	Socio-economical and geographical
You prescribe some <b>salbutamol</b> via nebulizer and this is given to Jack. (from “Nebulized salbutamol”)	Ventolin (active substance of which is salbutamol)	In Ukrainian practice Ventolin is used via nebulizer.	Professions and disciplines
You prescribe some <b>adrenaline via nebulizer</b> and this is given to Jack. (“from Nebulized adrenaline”)	Adrenaline (epinephrine) is used locally as inhalations via nebulizer	We don’t have adrenaline in nebulas in Ukraine. We can use instead capsular adrenaline (epinephrine). In the prescribing information to the medicine we see that it can be used locally – as an inhalation diluting it by normal saline solution. (0,9%NaCl)	Professions and disciplines
One hour later he is deteriorating again and you decide to call the <b>team from paediatric intensive care</b> who attend quickly. They review him and note also the normal radiograph. (“from Nebulized adrenaline”)	Emergency physician from the intensive care unit	The doctor can call for the emergency physician from the intensive care unit to see a child in the in-patient department.	Socio-economical and geographical

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<b>You prescribe</b> the dexamethasone <b>and site a cannula.</b> ( from “Consultant review”)	Doctor prescribes setting venous catheter	It’s the staff nurse who sets a venous catheter to the sick child after the doctor has prescribed it.	Socio-economical and geographical
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#### Rory Gallagher - Roman Galanov

The original	After adaptation	Comments	Aspects of adaptation
Rory Gallgher	Roman Galanov		Ethnic
Boyfriend (...it was a surprise for her and her <b>boyfriend</b> but she was very pleased...)	Common-law husband		Socio-economical and geographical
Attending paediatric trainee	Internship doctor	During the postgraduate stage of studying all doctors are internship doctors in Ukraine. Residency is planned to be implemented into the education system of Ukraine	Professions and disciplines
Diazepam <i>per rectum</i> (...attached monitoring and administer <b>diazepam per rectum.</b> )	Intramuscular	If there is no venous access during the emergency procedure, the drug administration way is intramuscular	Professions and disciplines
Oral Amoxicillin (You prescribe <b>oral Amoxicillin</b> for Rory’s chest infection...)	Amoxicillin in suspension	If the doctor decided to prescribe an anti-infective drug orally it is usually a suspension for children under 3 years of age	Professions and disciplines

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The Emergency Department (ED) (You call the paediatric doctors at the local hospital and they agree to see him in the <b>emergency department</b> (ED). )	Admissions office	The first emergency medical aid will be given in an admissions office and after the triage the patient will be admitted to the relevant department	Socio-economical and geographical
Cefotaxim (You prescribe some <b>cefotaxime</b> and arrange a CT scan...)	Ceftriaxon	Among Cephalosporines Ceftriaxon will be used as an agent of choice for the empiric therapy	Professions and disciplines

### 2.2.2. BSMU

For the Ukrainian translation and adaptation of cases under Ukrainian existing protocols of diagnosis and treatment in BSMU was established working group - translator of the Department of Foreign Languages and pediatricians of the Department of Paediatrics and Children Infectious Diseases. After translation of the responsible person for each case and adaptation members of the working group exchanged cases and conducted a second review to avoid technical errors in the translation cases into Ukrainian language. For better modification, test sessions was conducted with doctors-internship and staff of the Department of Paediatrics and Children Infectious Diseases. Most attention was drawn against the Ukrainian protocols for diagnosis and treatment of childhood diseases, drugs that are used in the cases, variants diet, drugs delivery methods, terminology, social aspects, professional features. In general, after the complete adaptation ZSMU cases were provided for review and comment.

#### Bella – Варвара Петренко (Varvara Petrenko)

The original	After adaptation in English	Comments	Aspects of adaptation
Bella	Varvara Petrenko		Ethnical aspects
You are an FY1 doctor covering the paediatric wards and the emergency department (ED) in a district general hospital on a Friday evening shift.	You - the doctor - the first year intern who is on duty in the pediatric ward and wards in the emergency department at the regional hospital on Friday evening.	In Ukraine doctor-intern, specializing in Pediatrics for the first year of practice may most closely correspond to a Foundation doctor (FY1) – a grade of medical practitioner in the United Kingdom.	Socio-economical and geographical aspects
B: Term baby, breastfeeding, mother's blood group B+ve	full-term baby, breastfeeding, maternal blood group B (III) Rh +	Traditionally ABO/Rh blood groups are presented like B(III)Rh+ in Ukraine.	Professions and disciplines

### D.2.1. Paediatric cases modified



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Bella was born vaginally following spontaneous onset of labour.	Varvara was born physiologically after spontaneous onset of labor.	Traditional medical terminology in Ukraine	Professions and disciplines
Mother is blood group B+ve and has sickle cell trait.	Mother`s blood (foreign students) B (III) Rh+, the mother has sickle cell abnormality of red blood cells.	It is mentioned that mother is a foreign student to explain presence of sickle cell trait absent in Ukrainians	Ethnical aspects
Capillary blood gas: ...pCO2 7.9 kPa pO2 4.0 kPa ...	Capillary blood gas: pCO2 of 59 mm Hg .; pO2 30 mmHg	Another units are used usually in Ukraine (mm Hg instead of kPa)	Professions and disciplines
In the meantime, you are called by the registrar who heard about the baby on postnatal ward with poor feeding and respiratory distress.	At the same time, you call the doctor, who heard that the House is postpartum infant with poor feeding and respiratory distress.	Usually doctor on duty oversee the intern`s activity, we don`t have position such as registrar.	Socio-economical and geographical aspects
You successfully intubate the baby and confirm the position of the endotracheal tube in the correct position.	Varvara intubated and confirmed the correct position of endotracheal tube (ETT).	In Ukraine mostly the specialized doctors are responsible for intubation of the patient not intern.	Professions and disciplines
You begin drafting the transfer letter	You start to transferable letter (shift epicrisis)	Official document is the epicrisis for transfer from medical card N 003  o.	Professions and disciplines

#### Rory Gallagher – Роман Головка - Roman Golovko

The original	After adaptation in English	Comments	Aspects of adaptation
Rory Gallagher	Roman Golovko	is ethnic Ukrainian name	ethnic
He is seen by the anaesthetists and admitted to the high dependency unit.	He examined anesthesiologist and enters the survey in the emergency department.	In Ukraine there are no any separate departments as high-dependency and intensive care units, there are combined	Professions and disciplines
INR 1.2 (0.9-1.3)	The international normalized ratio = (prothrombin time patient / Normal mean PT)	All abbreviations are transliterated fully as far as students are not familiar with short terms	Professions and disciplines

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APTr 1.1 (0.9-1.4)	1.2 (0.9-1.3)		
TT 28s (22-38)	The activated partial thromboplastin time (ratio) 1.1 (0.9-1.4) Thrombine time 28 sek (22-38)		

#### Dominic Barton – Дмитро Боднар - Dmytro Bodnar

The original	After adaptation in English	Comments	Aspects of adaptation
Dominic Barton	Dmytro Bodnar		Ethnical aspects
Neonatal trainee	Neonatologists trainee	Trainee position is on the English version	Professions and disciplines
Tracheal tug	intermittent breathing during inspiration	The definition of Tracheal tug is a jerky type of inspiration seen when the intercostal muscles and the sternocostal parts of the diaphragm are paralyzed by deep general anesthesia or muscle relaxants, short equivalent in Ukrainian language is missing	Professions and disciplines
Bounding pulses and easy to feel femoral arteries.	The heartbeat is easily felt in the femoral artery	A bounding pulse is a pulse that feels as though your heart is pounding or racing. This equivalent in Ukrainian language is missing.	Professions and disciplines
Alanine aminotransferase 112 U/L	ALT 112 U / L	units of activity measurements ALT and AST in Ukraine are mmol/l	Professions and disciplines
the hepatology service	Employee hepatological center	in Ukraine to help patients with liver disease hepatological centers were established	Professions and disciplines
TSH	TSH (thyroid-stimulating	to better understand the acronyms were decipher	Professions and disciplines

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	hormone)		
DCT	Direct Coombs Test	to better understand the acronyms were decipher	Professions and disciplines
Urine MSU	Microbial number of urine	in Ukraine analogues of this test can be considered a microbial urine count or bacteriological test of urine	Professions and disciplines

#### Davina - Дарина - Darina

The original	After adaptation	Comments	Aspects of adaptation
Davina	Darina	ethnic Ukrainian name	ethnic
neonatal clinic	Department of pathology of infants	in Ukraine to help infants in Department of pathology of infants were established	Professions and disciplines
Consultant of department review	Overview head of department	Ukraine does not post a physician assistant in health care facilities	Professions and disciplines
Consultant on breastfeeding	Pediatrician in polyclinic	In most cases, on outpatient stage pediatrician from polyclinic examines children.	Professions and disciplines

#### Charlie – Марічка - Marichka Berla

The original	After adaptation	Comments	Aspects of adaptation
Charlie	Marichka Berla		Ethnic aspects
Junior paediatric trainee	Doctor-intern	Trainee position is on the English version	Responsibility of medical staff
Assessment cubicle	Observation room	Title of the place of patient's examination	Professions and disciplines
The triage nurse's clerking	Examination sheet of ambulance doctor	There is no such position in hospital of Ukraine.	Responsibility of medical staff
Surgical team	Surgeon	In Ukraine, there is a	Professions and

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		possibility to invite for consultation only the medical consultant, not the team of doctors.	disciplines
Radiology department	Diagnostic department	The department of radiology in Ukraine conductive only X-ray, CT, MRI etc. Abdominal ultrasound is carried out in the diagnostic department.	Professions and disciplines
Radiologist (for abdomen ultrasound)	In ultrasound diagnostics specialist	The name of the specialist who conducts ultrasound diagnostics in the diagnostic department.	Professions and disciplines
Arrest team, intensive care team	Intensive care unit (ICU) doctor	In our clinic we can call only the doctor from ICU.	Professions and disciplines
You are a little surprised to see that the triage nurse has already taken some blood tests, which are now available. The nurse explains that she has done the training to be able to do this.	The ward nurse gives you some blood tests, you're a little surprised to see that they were ready so quickly. The nurse explains that new lab assistant work in the laboratory who is very responsible and quickly performs the work.	In Ukraine all blood tests are carried out by lab assistants in medical laboratory. The ward nurse only takes blood from the patient.	Responsibility of medical staff
Supplement	Drug (medicine)	In Ukraine we don't use supplements for treatment of iron deficient anaemia of children. We use some drugs such as vitamin D, medicines with ferrum ect.	Professions and disciplines
Family doctor	Pediatrician in polyclinic	In most cases, on outpatient stage pediatrician from polyclinic examines children in the city.	Professions and disciplines

#### Jack Horner – Євген Горін – Yevhen Horin

The original	After adaptation	Comments	Aspects of adaptation
Jack Horner	Yevhen Horin		Ethnical aspects
Mild tracheal tug	sternal retraction	There is no literal translation from English	Professions and disciplines

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Nebulized adrenaline	nebulized adrenaline	In Ukraine rarely used epinephrine inhalation	Professions and disciplines
Consultant review	Overview head of department	Ukraine does not post a physician assistant in health care facilities	Professions and disciplines
Pediatric intensive care unit (PICU)	Department of Emergency and first aid / Anesthesiology and Intensive Care	For Ukraine a peculiar name outlets	Professions and disciplines

## 2.3. Vietnam

### 2.3.1. HMU

After having been trained by Dr. Ella Iskrenko, HMU team with an encourage of the dean of Pediatric Department and the head of Institute of Preventative Medicine, have organized several meetings to introduce d-PBL and virtual cases of Pediatrics as a new method of learning and teaching to all young staff of Pediatric and other departments of HMU. After training we've chosen the most enthusiastic and competent teachers to set up a group of tutors of d-PBL teaching. This group had worked with students on the case of Rory and late on have been trained more by Dr. Ella on Linear case teaching. Now we have 12 tutors on branched and linear cases teaching. For translation and adaptation of pediatric clinical cases based on Medical Error (ME) Partner Universities from Vietnam distributed cases between HMU and HUMP, 3 cases for each university . It was also agreed to provide cases to each University for peer-review. The cooperation of both Vietnam Universities helped to adapt the cases to the local culture more effectively. The translating and adapting group had been training to work in Open Labyrinth on address <http://olab.amu.kz>. Total 6 pediatric clinical cases in Vietnamese were implemented into Open Labyrinth by 2 universities of Vietnam. The working group (HMU teachers with English qualification who are also medical doctors working at children hospitals were responsible for adaptation) reviewed each case. The cases were distributed among the members of the working group. Duration of translation and adaptation was approximately 4 hours a day during 1 month for translation and adaptation of 4 cases.

Discussions took place in order to consider: differences in the health system, the stages of care delivery, the correspondence with national diagnostic and treatment guidelines based on pediatric guidelines, also to compare with WHO guidelines based "Integrated Management of Childhood Diseases" which was implemented in our pediatric curriculum for medical students and requiring learning objectives of medical students. Also the group paid attention on such things as: terminology,



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name and surname of the patients, communications skills, due to traditional cultures, peculiarities of physical examinations of patients, team working, and approach to patients and protocols of treatment.

The adaptation process of cases considered 4 basic aspects:

- Ethnic aspects
- Language aspects
- Socio-economical and geographical aspects
- Professions and disciplines (the differences in hospitals of the countries in the terms of guidelines and procedures, roles of the doctors and nurses).

#### Bella –(Yen)Bé Yên

The original	After adaptation	Comments	Aspects of adaptation
Name: Bella Potter	Yen		Ethnic
Nam of other children: Nathan, Orode	Anh, Nam		Ethnic
you are <b>fast-bleeped</b>	You are <b>called urgently</b>		Language
Consultant	Senior doctor of duty team	No consultant. In Vietnam for each duty of ED there are senior and junior doctors. A resident doctor can work as a junior doctor on duty under supervision of a senior doctor.	Professions and disciplines
<i>She was born at 40+3 weeks with a birthweight...</i>	43 weeks	In Vietnam it's summarily 43 weeks	Professions and disciplines
Vaginally ( <i>Bella was born vaginally following...</i> )	Born naturally		
She is otherwise well and <b>had no complications</b> during her pregnancy	She had a normal pregnancy		Ethnic
Oxygen saturation	SpO2	In Vietnam we use SpO2 instead of SaO2	Professions and disciplines
Benzylpenicillin and gentamicin ( <i>She is started on</i>	Cefotaxim and	According to Vietnamese context in neonatology	Professions and

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benzylpenicillin and gentamicin <i>and given...</i> )	Gentamicin	combination of cefotaxim and gentamicin is prescribed	disciplines
<i>She has attempted to be bottle fed, but...</i> )	She has bottle feeding with exertion		Language aspects
Blue peripheries ( <i>Blue lips and peripheries...</i> )	Acrocyanosis	In Vietnam the term <i>acrocyanosis</i> is used, not peripheries	Professions and disciplines
Sedated on morphine infusion	Midazolam	Midazolam is used in Vietnam to quick sedate patients	Professions and disciplines
Outcome	Long-term prognosis	No word as Outcome in Vietnamese healthcare system	Professions and disciplines

#### Rory Gallagher - Nguyen Quoc Viet

The original	After adaptation	Comments	Aspects of adaptation
<b>Rory Gallagher</b>	<b>Nguyen Quoc Viet</b>	name	ethnic
You are the family Doctor in a city based practise	You are working at Community clinics	In Vietnam it's not popular yet family doctor on city based clinics, we have first level healthcare setting as community clinics	Economical – social aspect
You collect a little more information	You ask about history		Ethnic
Boyfriend (...it was a surprise for her and her <b>boyfriend</b> but she was very pleased...)	Husband	In Vietnam even when parents of a child have not married yet, but they live together, we can call them as wife and husband.	ethnic
The resuscitation team smile and leave	The resuscitation team left		Language
I saw your name on the prescription.	I saw your name with contact telephone on the prescription	It's not popular in Vietnam the close contact between doctor and pharmacy. There should be telephone contact on the prescription that pharmacist can call to announce to doctor	Economical – social aspect

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Resuscitation area (You are called urgently to the <b>resuscitation area...</b> )	Intensive therapy room	There is no special space in the Admissions Office for resuscitation. The most closest is intensive therapy room, which is located in the admissions office.	Professions and disciplines
High dependency unit/ intensive care unit (He is seen by the anesthetists and admitted to the <b>high dependency unit</b> )	Intensive care unit	In Vietnam there is no separate departments as high-dependency and intensive care units, there are combined	Professions and disciplines
Ward staff (...give instructions to the <b>ward staff</b> )	Give instruction to the ward nurse	Most times ward staff consists only from one nurse	Professions and disciplines
Oral Amoxicillin (You prescribe <b>oral Amoxicillin</b> for Rory's chest infection...)	Augmentin	If the doctor decided to prescribe an anti-infective drug orally it is usually an Augmentin for children under 3 years of age	Professions and disciplines

#### Davina - Thy

The original	After adaptation	Comments	Aspects of adaptation
Davina	Thy	name	ethnic
Although they are grateful for their beautiful daughter, they wonder if it could have been done another way.	Although they are grateful for their beautiful daughter, they wonder if the delivery by Caesarian was necessary	Students may not understand the idea	Language
When you bring Davina and her parents into the clinic room	When Davina's parents bring her back to you...	Otherwise, player can misunderstand that right after taking decision, Davina will be seen by specialist, but not have been seen by specialist	Language
You plan to see her again in three months and then potentially discharge her from the neonatal follow up clinic	You plan to see her again in three months	In National Children Hospital of Vietnam, no need to discharge an outclinic patient.	Social – economic aspect

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Davina is once again seen in the neonatal follow up clinic	Davina is once again seen at outpatient clinic	In Vietnam, neonatal clinic will not see patient out of neonatal age but will be transferred to outpatient clinic.	Professions and disciplines
Antiendomysial antibodies & Antigliadin antibodies Scan (Early scans normal and anomaly scan normal)	Antibodies in Celiac disease  Antibodies anti Wheat protein	In Vietnam we don't have these tests, so this is very unfamiliar with students, it's better to show them the meaning of the test	Social – economic aspect
Had a visit by the community midwife	A relative - a midwife visited the mother and baby	In Vietnam we don't have community midwives, they come to see a neonate regularly	Social – economic aspect, profession and disciplines

### 2.3.2. HUMP

Following the discussion between Hue UMP and HMU, we have agreed to assign 3 VPs paediatric cases to each institution for translation and adaptation into Vietnamese context. Thus, Hue UMP is responsible for translation and adaptation of the case number 1 (Dominic Barton – Neonatology), case number 2 (Jack Horner – Difficult in breathing), and case number 3 (Charlie - Vomiting) whereas HMU is responsible for cases number 4, 5, and 6.

The Hue UMP team have been working together for almost two months with about 10 hours per week to translate and adapt those cases. There were at least two clinicians, a paediatrician and a public health specialist working together in every translation section. In each section, the team has discussed to consider carefully the content as well as the context of the case. The clinicians considered the content aspects in relation to the context of clinical work in Vietnam whereas the public health specialists consider the health and transferring system as well as social and ethical aspects. In order to adapt the case to Vietnamese context and culture, the name of the patient was renamed a popular Vietnamese one.

After the translation and adaptation was finished, the cases in Vietnamese were uploaded to Open Labyrinth for review by HMU team.

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#### Case number 1 - Neonatology (Dominic Barton – Ba)

The original	After adaptation	Comments	Aspects of adaptation
Dominic Barton	Ba	Renamed as Vietnamese name	Culture
Baby Barton's weight is 1.6kg	Baby Barton's weight is 1600g	Vietnamese medical literatures officially measure child's weight using gram rather than kilogram.	Medical sciences
Node 3919: You return the following night and are pleased to see Baby Barton has had a difficult day.	You return the following night and are NOT pleased to see Baby Barton has had a difficult day.	Writing	Language
Node 3919: His nurses check his blood glucose and find that it is 1.8 mmol/L, and he the rate of his glucose infusion is increased.	His nurses check his blood glucose and find that it is 1.8 mmol/L, and the rate of his glucose infusion is increased.	Redundancy "he"	Language
Node 3920: Having two or more major deviations from 'ideal' increases anxiety in the parents	Increases anxiety in the parents	It is not necessary to mention in detail about how much anxiety is increased	Content
Node 3921: Check bilirubin, then transfer to liver specialist centre	Check bilirubin, then transfer to the digestive liver specialist centre	There is no specialized liver center in Vietnam. Instead, hospitals have the department of digestive specialist center including liver specialization.	Health system and organization

#### Case number 2 – Difficult breathing (Jack Horner – Huy)

The original	After adaptation	Comments	Aspects of adaptation
Jack Horner	Huy	Renamed as Vietnamese name	Culture

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Presentation at Accident and Emergency	Emergency department	There is no Accident and Emergency in Vietnam. The Emergency department includes accident unit.	Health system organization
Node 4382: <b>Chest radiograph</b> You decide to obtain a chest radiograph and a request is made. The <b>parents take</b> him to the department and return after an hour.	<b>Chest radiograph</b> You decide to obtain a chest radiograph and a request is made. The <b>nurse takes</b> him to the department and return after an hour.	In the emergency department in Vietnam, the nurse always follows patient to the imaging diagnosis department for obtaining radiograph.	Health system organization
Node 4382: <b>Chest radiograph</b> The image is <b>available on the system</b> :	The image is as follow:	Normally, there is no system that physicians can see the radiograph results. The image is transferred to the doctors and they will see the film directly.	Health system organization
<b>Decision steps 2: Fixation, Triage, Ignorance, Insufficient skill, Playing the odds</b> The definitive test and treatment is a bronchoscopy, but this is not a realistic procedure until he has had a chest radiograph, showing none of these conditions ( <b>see below</b> )	The definitive test and treatment is a bronchoscopy, but this is not a realistic procedure until he has had a chest radiograph, showing none of these conditions	There is no chest radiograph available. Therefore, the citation “see below” needs to be removed.	Content

### Case number 3 – Vomiting (Charlie – Chi)

The original	After adaptation	Comments	Aspects of adaptation
Charlie	Chi	Renamed as Vietnamese name	Culture
<b>Stage 1 – Initial assessment (4049(root)</b> During the history taking, Charlie has changed quite a bit	During the history taking, Charlie has changed quite a bit – she looks less pale now rather than previous.	Mistyping	Language

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– she looks less pale now rather than pale			
<b>Node 4049</b> You are a little surprised to see that the triage nurse has already taken some blood tests which are now available. The nurse explains that she has done the training to be able to do this.	Remove this paragraph	Not appropriate in VN	Content
<b>Commentary (4050)</b> Lastly, <b>mis-triage</b> will overlook the need to resuscitate the child, stabilise and find the cause rather than <b>make referrals to social services or</b> send the child to ultrasound.	Remove the phrase “make referrals to social services or”	Referring ill child to social services is not recommended in Vietnames culture.	Culture
radiology department	Imaging diagnosis department	There is only imaging diagnosis department in Vietnam	Health system organization
Ask <b>GP</b> to follow up (4070) You explain that she is ready for discharge but will need to be seen in clinic in a few weeks to check she is back to normal. Meanwhile, if there are any problems she can contact her family doctor. She looks relieved.	Ask <b>parents</b> to take him to the health station for regular follow up in a few weeks and get him back to hospital if there are any problems.	There is no family specialist in Vietnam. The parents should bring the child back to hospital.	Health system organization
Ultrasound abdomen (4072) <b>However</b> , she also became unresponsive and stopped breathing.	<b>Meanwhile</b> , she also became unresponsive and stopped breathing.	Language	Language



## 3. CHALLENGES DURING THE MODIFICATION OF PAEDIATRIC CASES

### 3.1. Kazakhstan

#### 3.1.1. AMU

1. The first difficulty in adapting is called «abbreviations in English». It took more time to search for description. All abbreviations must be either written on page 1, or should be described for the first time. For example: DCT- direct Coombs test, Urine MSU- Midstream Specimen of Urine (MSU) Gbs- Group B streptococcal infection.
2. In case Dominic Barton, Jack Horner: description respiratory failure: tracheal tug, sternal recession, inspiratory crackles are in all areas, occasionally grunting. In English above mentioned physical examination terms are clear but there are some difficulties in Russian - these terms are not used in medical terminology, or used in different words. So some terms were confusing due to its seldom appearance in our daily terminology or used in different words.
3. Search for analogue names of medical institutions became a great challenge too (for instance GP surgery, high dependency unit etc.) along with the names of professions, because some of them do not exist or are called differently. For example, in cases there are separate resuscitation team (team resuscitation) and patients separately referred to anesthesiologists, respiratory team (we have consultant pulmonologist or intensive care unit).
4. During adaptation was difficult to translate and understand the meaning of “Playing with odds”.
5. Different principles of patient care management and organization of referral process (in Kazakhstan it requires wide range of preliminary checkups to transfer patient in specialized department, such as cardiac center compared to that ones used in clinical cases

#### 3.1.2. KSMU

In working progress we came across the following difficulties:



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1. Translation of medical terminology from English into Russian language (abbreviations of laboratory research and medical staff)
2. Differences in functional duties of medical staff (for example, in Kazakhstan, during hospitalization it is a duty of admission department doctor to examine a patient – not an ambulance officer; another example is that an admission department doctor monitors the sorting process of patients - not a nurse as in Britain.)
3. The differences in clinical examination and laboratory and instrumental examination of children (for example, if admission department doctor diagnoses a child with false croup, then he will also apply epinephrine inhalation according to the IMCI program and clinical treatment protocols, yet, the assessment of the child's condition will be made by a nurse every three hours; re-examination, initially every 3 hours, then in case of improvement and stabilization of the child's condition is carried out as required ),
4. Harmonizing the medical treatment of paediatric cases with the national diagnostic and treatment guidelines (protocols),
5. Due to the fact that in educational system and practical healthcare of Kazakhstan Republic, a national strategy of IMCI is used for treatment of children under 5 years, it is necessary to explain the program to students and teach them how to implement it in clinical cases
6. The correct translation of comments to paediatric cases without loss of context. The most important part is to translate comments to each clinical case accurately, because comments describe types of medical errors and their titles, and to understand their meaning.

## 3.2. Ukraine

### 3.2.1. ZSMU

1. During the cases' adaptation one of the difficulties the adaptors have faced was to determine a name of the department according to the Ukrainian legislation, as the name usually depends on the medical institution where a patient is treated. For example, accident and emergency department was sometimes conveyed as reception ward (emergency room) or intensive care unit. The choice depended on the case. In Ukraine we also do not have the radiology department and we adapted it as the department of roentgenology (X-ray radiography) or room of ultrasonic medical investigation.
2. The next difficulty we should mention was the positions of doctors. For example: resident doctor – internship doctor; complementary physician – specialist of not traditional (alternative) medicine; the radiologist – a roentgenologist or ultrasonic medical investigation specialist; the arrest team - emergency physician from the intensive care unit.

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3. The adaptors paid special attention to titles of the mentioned in the cases drugs, as they should correspond with the national protocols during the first aid treatment. We adapted them the following way: epinephrine-adrenaline; salbutamol-ventolin, morphine-seduksen; benzympenicillin and gentamicin - augmentin and amikacin. When antibacterial drugs were appointed in a case, in some cases, we changed the drug group according to the protocols (ex. penicillins to cephalosporins).
4. The administration ways were also adapted in accordance with general practice in Ukraine: (rectal – intramuscular). Pharmaceutical form of drugs was sometimes changed as well (nebula – nebulizer). Some forms are not widespread in Ukraine, or are absent at all.
5. Some abbreviations also baffled during the adaptation process (GORD - gastroesophageal reflux disease; USS - Ultrasound system).
6. Some terms and diseases were also adapted in accordance with Ukrainian medical system: chest recession - chest indrawing, blue skin - acrocyanosis; auxology - anthropometrical data; cannula - venous catheter.

### 3.2.2. BSMU

During adaptation of cases greatest difficulties arise from:

1. The need to synchronize the usual terminology of certain diseases or symptoms;
2. Sometimes a lack of literal translation from English to Ukrainian, in particular, the translation of the names of medical errors in the comments of case;
3. The need to replace in case of names of clinical consultants given the professional features specialties available in Ukraine;
4. The need to replace in a clinical case names viddileni clinics, because of certain characteristics of existing licenses and the usual names of medical institutions in Ukraine
5. Was sometimes need to use more conventional measurements of individual tests - complete blood count, biochemical etc.



## 3.3. Vietnam

### 3.3.1. HMU

1. The first difficulty in adapting is called «abbreviations in English». It took a little time to search for description. But after all, we have found it on internet and translate it in the same meaning in Vietnamese clinical words.
2. There are some differences in health care system in Vietnam and other country, such as it's usual in England a family doctor takes care for some patient and there's a good informative connection between experts of clinical hospitals and family doctors, but in Vietnam health care system does not work so well. We don't have sharing information formally between doctor of hospital and family doctor. We also don't have community midwife or doctor to visit neonate regularly as in England. So in the case adaptation if we remain the original version, students may not familiar and burning questions, so all social – economical should be changed according to Vietnam healthcare context.
3. In the case of Rory, it's difficult to change from Rory's mother and her boyfriend. Because in Vietnam, if a man and a woman have a common baby, they are considered as a family with wife and husband. And therefore we have just put them as a wife and a husband. Search for analogue names of medical institutions became a great challenge too (for instance GP surgery, high dependency unit etc.) along with the names of professions, because some of them do not exist or are called differently. For example, in cases there are separate resuscitation team (team resuscitation) and patients separately referred to anesthesiologists, respiratory team (we have consultant pulmonologist or intensive care unit).
4. There are several langue challenges because we don't use the same phrase as in English. For example, the resuscitation team smile and leave. In a critical situation (baby's beginning to be ventilated and surviving after heart compression) nobody should smile. So in some context we just can make it easier to understand by making simple words and skip several unnecessary words.

### 3.3.2. HUMP

1. The family doctor model has not yet officially functioned in Vietnamese health system. There only GPs working in the health station at each commune instead. Therefore, Charlie could not be followed up by a family doctor at home. He should be followed by a GP at the commune health station.
2. There are some medical terminologies, drug trademarks as well as symptoms (DVP, nil added, upset...) need to be written fully or changed appropriately.

### D.2.1. Paediatric cases modified



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3. Some departments at hospitals need to be modified in accordant with hospital organization system in Vietnam such as radiology department – imaging diagnosis department, liver specialist center – digestive and liver department.