## Attachments

Annex 1: Ethics committee approval

Annex 2: Consent form

Annex 3: List of tables and figures

#### Application for Approval by UK FTVS Ethics Committee

of a research project, thesis, dissertation or seminar work involving human subjects

The title of a project: Case study of physiotherapy treatment of a patient after ischemic stroke in basal ganglia with right sided spastic hemiparesis

Project form: Bachelor Thesis

Period of realization of the project: January 2023 - February 2023

The research will be earried out in accordance with the valid epidemiological measures of the Ministry of Health of the Czech Republic.

Applicant: Husam Aldin Nascr Barakat, UK FTVS department of physiotherapy

Main researcher: Husam Aldin Naser Barakat, UK FTVS department of physiotherapy

Place of work: Oblastní Nemocnice Kladno

Supervisor (in case of student's work); Mgr. Ilona Kučerová

Financial support:

Project description: Writing Bachelor's thesis based on my patient diagnosis. My patient has an ischemic stroke in basal ganglia with right sided spastic hemiparesis. The goals of the rehabilitation process is to increase range of motion, facilitate muscles of affected side, prevent secondary complications, also increase his ability and independence in performing activities of daily living.

The project starts with a theoretical part followed by a Study case reporting the complete initial and final assessment including neurological, kinesiological examinations and other tests needed according to his diagnosis.

The study case also displays the day to day therapy which focused on techniques such as DNS, PNF, PIR. Along with soft tissue techniques, manual methods and joint mobilizations. Moreover, training exercises in which some equipment was used such as overall and some stability aids.

All the methods and techniques used were taught to me in FTVS during my bachelor degree program.

Characteristics of participants in research: The involved participant is one. The participant is male and 58 years old who has been assigned to me at OMN in Rehabilitation department for my Bachelor's thesis. The participant had an ischemic stroke in basal ganglia on left side on 10.10.2021. He was hospitalized before in the rehabilitation department of OMN in the period of 12.07.2022 to 02.08.2022. The patient's condition now is better but he was admitted to the same rehabilitation department again mainly to improve the state right sided limbs. Patients with acute (especially infectious) diseases do not participate in therapy.

Ensuring safety within the research: I ensure that my therapy does not include any invasive methods and the patient will not be put at any risk. The implementation is safe with respecting the conditions and rules of the hospital and also under the control and supervision of Bc. Tomáš Modlinger. Risks of therapy and methods will not be higher than the commonly anticipated risks for this type of therapy.

Ethical aspects of the research: Data will be collected in line with the rules given by European Union no. 2016/679 and the Czech Act no. 110/2019 Coll. – on personal data processing.

The collected data will be anonymized within one week after the end of working with the patient. I understand that anonymization means that the text does not use any item of information or combination of Items that could lead to the identification of a person. I will be careful not to enable recognition of a person in the text of the thesis, especially within the anamnesis. After the text has been anonymized, any personal data still kept elsewhere will be deleted.

All collected data will be safely stored on a PC safeguarded by a keyword in a locked room, any data in paper form will be kept safely under lock and key in a locked room. The data will be processed, safely retained and published in an anonymous way in the bachelor thesis.

Photographs: Photographs of the participant will be anonymized within one week after being taken by blurring the face, parts of the body or any characteristics that could lead to identification of the person. After anonymization any non-anonymized photographs will be deleted by the end of the study. The non-anonymized photographs will be accessed only by the main researcher and supervisor.

#### UNIVERZITA KARLOVA V PRAZE FAKULTA TĚLESNÉ VÝCHOVY A SPORTU José Martího 31, 162 52 Praha 6-Veleslavín

No audio recordings or video recordings will be taken during the research.

I shall ensure to the maximum extent possible that the research data will not be misused.

Informed Consent: attached

It is a duty of all participants of the research team to protect life, health, dignity, integrity, the right to self-determination, privacy and protection of the personal data of all research subjects, and to undertake all possible precautions. Responsibility for the protection of all research subjects lies on the researcher(s) and not on the research subjects themselves, even if they gave their consent to participation in the research. All participants of the research team must take into consideration ethical, legal and regulative norms and standards of research involving human subjects applicable not only in the Czech Republic but also internationally.

I confirm that this project description corresponds to the plan of the project and in case of any change, especially of the methods used in the project, I will inform the UK FTVS Ethics Committee, which may require a re-submission of the application form.

In Prague, 27.01.2023

Applicant's signature: Lluxun

### Approval of UK FTVS Ethics Committee

The Committee: Chair: Doc. PhDr. Irena Parry Martinková, Ph.D.
Members: Prof. PhDr. Pavel Slepička, DrSc.
PhDr. Pavel Hráský, Ph.D.
Mgr. Tomáš Ruda, Ph.D.

Prof. MUDr. Jan Heller, CSc. Mgr. Eva Prokešová, Ph.D. MUDr. Simona Majorová

The research project was approved by UK FTVS Ethics Committee under the registration number:

Date of approval: L.Y. 1

UK FTVS Ethics Committee reviewed the submitted research project and found no contradictions with valid principles, regulations and international guidelines for carrying out research involving human subjects.

The applicant has met the necessary requirements for receiving approval of UK FTVS Ethics Committee.

UNIVERZITA KARLOVÁ Fakulta řílesné výchovy a sportu José Stamp of UK FTV\$ 52, Praha 6

Signature of the Chair of UK FTVS Ethics Committee

# Annex 2:

# INFORMOVANÝ SOUHLAS

Vážená paní, vážený pane,

v souladu se Všeobecnou deklarací lidských práv, zákonem č. 101/2000 Sb., o ochraně	
osobních údajů a o změně některých zákonů, ve znění pozdějších předpisů, Helsinskou	
deklarací, přijatou 18. Světovým zdravotnickým shromážděním v roce 1964 ve znění	
pozdějších změn (Fortaleza, Brazílie, 2013) a dalšími obecně závaznými právními	
předpisy Vás žádám o souhlas s prezentováním a uveřejněním výsledků vyšetření a	
průběhu terapie prováděné v rámci praxe na1,	
kde Vás příslušně kvalifikovaná osoba seznámila s Vaším vyšetřením a následnou terapií.	
Výsledky Vašeho vyšetření a průběh Vaší terapie bude publikován v rámci	
bakalářské práce na UK FTVS, s názvem2	
Získané údaje, fotodokumentace, průběh a výsledky terapie budou uveřejněny v	
bakalářské práci v anonymizované podobě. Osobní data nebudou uvedena a budou	
uchována v anonymní podobě. V maximální možné míře zabezpečím, aby získaná data	
nebyla zneužita.	
Jméno a příjmení řešitele	
Podpis:	
Jméno a příjmení osoby, která provedla poučení3	
Podpis:	
Prohlašuji a svým níže uvedeným vlastnoručním podpisem potvrzuji, že dobrovolně	
souhlasím s prezentováním a uveřejněním výsledků vyšetření a průběhu terapie ve výše	
uvedené bakalářské práci, a že mi osoba, která provedla poučení, osobně vše podrobně	
vysvětlila, a že jsem měl(a) možnost si řádně a v dostatečném čase zvážit všechny	
relevantní informace, zeptat se na vše podstatné a že jsem dostal(a) jasné a srozumitelné	
odpovědi na své dotazy. Byl(a) jsem poučen(a) o právu odmítnout prezentování a	
uveřejnění výsledků Místo, datum	
Jméno a příjmení pacienta Podpis pacienta:	
Jméno a příjmení zákonného zástupce4	
Vztah zákonného zástupce k pacientovi	

#### Annex 3:

- Table 1 Deep tendon reflexes of UEE (initial examination)
- Table 2 Paretic signs of UEE (initial examination)
- Table 3 spastic signs of UEE (initial examination)
- Table 4 Deep tendon reflexes of LEE (initial examination)
- Table 5 Paretic signs of LEE (initial examination)
- Table 6 Spastic signs of LEE (initial examination)
- Table 7 Spasticity assessment using MAS (initial examination)
- Table 8 Barthel index (initial examination)
- Table 9 Muscle length test (initial examination)
- Table 10 Goniometry of UEE (°) (initial examination)
- Table 11 Goniometry of LEE (°) (initial examination)
- Table 12 Anthropometric length of LEE (cm) (initial examination)
- Table 13 Anthropometric circumference of LEE (cm) (initial examination)
- Table 14 Anthropometric length of UEE (cm) (initial examination)
- Table 15 Anthropometric length of UEE (cm) (initial examination)
- Table 16 Deep tendon reflexes of UEE (final examination)
- Table 17 Paretic signs of UEE (final examination)
- Table 18 spastic signs of UEE (final examination)
- Table 19 Deep tendon reflexes of LEE (final examination)
- Table 20 Paretic signs of LEE (final examination)
- Table 21 Spastic signs of LEE (final examination)
- Table 22 Spasticity assessment using MAS (final examination)
- Table 23 Barthel index (final examination)
- Table 24 Muscle length test (final examination)
- Table 25 Goniometry of UEE (°) (final examination)
- Table 26 Goniometry of LEE (°) (final examination)
- Table 27 Anthropometric length of LEE (cm) (final examination)
- Table 28 Anthropometric circumference of LEE (cm) (final examination)

- Table 29 Anthropometric length of UEE (cm) (final examination)
- Table 30 Anthropometric length of UEE (cm) (final examination)
- Table 31 Goniometry of UEE (°) (before and after therapy)
- Table 32 Deep tendon reflexes of UEE (before and after therapy)
- Table 33 spastic signs of UEE (before and after therapy)
- Chart 1 Spasticity levels of right UE before and after therapy
- Figure 1- Anatomical structure of Basal Ganglia. (TeachMeAnatomy, n.d.)