



The Intensive Connection



European Diploma in Intensive Care Medicine (EDIC)

z pohledu organizátora, statistika a absolventa

Petr Waldauf, KAR FNKV

Konflikt zájmů

- 2016 – 2022 člen EDIC examination committee
- Od r. 2022 kontrakt s ESICM jako datový analytik a edukacionalista pro zkoušky EDIC I, II, EDEC a SGI

- Evropský diplom v intenzivní medicíně (EDIC) usiluje o **standardizaci vzdělávání** a odborné přípravy v oblasti kvalitní intenzivní péče v Evropě i mimo ní.
... **bez ohledu na primární specializaci**
- Zkouška EDIC je pečlivě vyvíjena a průběžně aktualizována s cílem vytvořit standardní výstupní zkoušku, které přesně odrážejí jasně definované cíle hodnocení a zaměřují se na nezbytné dovednosti, postoje, kompetence a znalosti potřebné pro praxi v intenzivní péči.

Struktura ETC

- **Education and Training Committee** (koordinace všech edukačních aktivit ESICM)
 - **EDIC Examinations Sub-Committee**
 - příprava, organizace a zkoušení EDIC I a II
 - předseda, 13 členů (volení/nominovaní) + edukacionalista
 - **EDEC Curriculum Sub-Committee**
 - příprava, organizace a zkoušení EDEC
 - **E-learning Sub-Committee**
 - e-learningová platforma **ESICM Academy**
 - **Clinical Training Sub-Committee**
 - vzdělávací kurzy, např. **přípravný kurz pro EDIC I a II**
 - **CoBa Faculty**
 - **CoBaTrICE**

CoBaTrICE - <http://www.cobatrice.org>



CoBaTrICE

COMPETENCY-BASED TRAINING IN INTENSIVE CARE MEDICINE IN EUROPE

English | Español

HOME

ABOUT COBATRICE

COMPETENCIES

SYLLABUS

LIBRARY

ASSESSMENT

HELP

MY COBATRICE

Welcome

CoBaTrICE is an international Competency-Based Training in Intensive Care Medicine for Europe and other world regions. This website links the CoBaTrICE program to the syllabus, library and assessment guidelines. Use the drop down menus to view the CoBaTrICE program.

CoBaTrICE is an international partnership between the European Society of Intensive Care Medicine (ESICM) and the Intensive Care Society (ICS). The ultimate aims of CoBaTrICE are:

1. Resuscitation

2. Diagnosis

3. Disease Management

4. Interventions

5. Procedures

6. Perioperative Care

7. Comfort & Recovery

Intensive Care Medicine for Europe and other world regions. This website links the CoBaTrICE program to the syllabus, library and assessment guidelines. Use the drop down menus to view the CoBaTrICE program.

critical care clinicians. The ultimate aims of

LOG-IN

E-mail:

Password:

OK

[+ How to register ?](#)

[+ Password forgotten ?](#)

ESICM ACADEMY - <https://academy.esicm.org/>

Learn new medical skills online
anytime anywhere

Get unlimited access to ~100 ICU Courses

 <p>Acute Ischaemic Stroke</p> <p>Neuro Intensive Care</p> <p>Enrolled 3765</p> <p>Last Updated: June 20, 2022</p>	 <p>Acute Kidney Injury Part I: Definition and diagnosis</p> <p>Acute Kidney Injury</p> <p>Enrolled 267</p> <p>Last Updated: November 11, 2022</p>	 <p>Acute Kidney Injury Part II: Epidemiology</p> <p>Acute Kidney Injury</p> <p>Enrolled 138</p> <p>Last Updated: November 11, 2022</p>	 <p>Acute Kidney Injury Part III: Pathophysiology</p> <p>Acute Kidney Injury</p> <p>Enrolled 102</p> <p>Last Updated: November 11, 2022</p>	 <p>Acute Kidney Injury Part IV: Diagnostic work up</p> <p>Acute Kidney Injury</p> <p>Enrolled 87</p> <p>Last Updated: November 11, 2022</p>	 <p>Acute Kidney Injury Part V: Prevention and Conservative Treatment</p> <p>Acute Kidney Injury</p> <p>Enrolled 97</p> <p>Last Updated: November 11, 2022</p>
 <p>Acute Kidney Injury Part VI: Long term outcome</p> <p>Help</p>	 <p>Acute Liver Failure</p>	 <p>Acute Myocardial Ischaemia Terminology</p>	 <p>Acute Respiratory Distress Syndrome (ARDS)</p>	 <p>Acute respiratory failure ECLS</p>	 <p>Airway Management</p>

EDIC preparation courses



CESMA akreditace EDIC



The Council for European Specialist Medical Assessment
(UEMS-CESMA)



Rue de l'Industrie, 24 B-1040 Brussels, Belgium



EDIC I – písemná část

- MCQ test
- Zaměřen na testování teoretických znalostí intenzivní medicíny

Požadavky pro EDIC I

- Lékařský diplom
- Potvrzení a vstupu/dokončení národního základního oboru:
 - Intenzivní medicína
 - Anesteziologie
 - Urgentní medicína
 - Vnitřní lékařství
 - Chirurgie
 - Pediatrie
- Potvrzení o vstupu do národního oboru intenzivní medicína **nebo** dokončená 18 měsíční stáž v oboru IM

EDIC I - dříve

Dubai



Paris



EDIC I - nyní

15:58

00:11

ESICM Fake EDIC 2021



Petr WALDAUF

Complete the exam and submit results

15/100

Which of the following complications in a patient on chemotherapy can be attributed to tumour lysis syndrome?



39

40

41

42

43

44

45

46

46

A

Hypercalcaemia

D

Hepatic failure

B

Typhlitis

E

Renal failure

C

Agranulocytosis

Mark question to return later



47

48

49

50

51

52

53

54

EDIC I & ProctorU

an anti-cheating platform with IA



EDIC II – ústní část

- OSCE (Objective Structured Clinical Examination)
- Zaměřen na testování kompetencí, odborných znalostí a odborného chování na konci specifické odborné přípravy (2-3 roky) v oboru intenzivní medicína

Požadavky pro EDIC II

- **Získání EDIC I**
- **24 měsíční stáž v intenzivní medicíně (full-time, supervised training)**

EDIC II



EDIC II

Porto



Dublin



London



Copenhagen



Prague



EDIC II: Clinical Case Scenarios (CCSs)

CCS 1

CCS 2

CCS 3



The Intensive Care Society



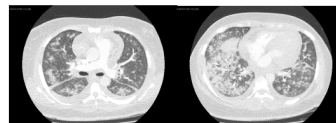
Clinical Case Scenario 1A 1B

Background: You are asked to evaluate a 36-year-old Afro-American female known to have multiple sex partners (162 cm/82 kg) admitted to the ED for acute hypoxic respiratory failure. She returned to Europe from the Caribbean 6 days ago.

- Background:**
- Anaemia discovered 1 year ago – probably related to iron deficiency (under investigation) – treatment with iron and multiple transfusions
 - Metrorrhagia
 - Hypertension
 - Gastritis
 - Complete COVID vaccination (two times)

- History:**
- Transfusion 14 days ago for anaemia – haemoglobin 6.5 g/dL
 - Progressive dyspnoea over the last 10 days
 - Acthena, headache and diffuse pain
 - Temperature between 36.3 and 38.3°C
 - SpO₂ of 80% on arrival in the ED

- Clinical evaluation:**
- Oriented, no signs of neurologic dysfunction
 - Sinus tachycardia 110/min, BP 120/70 mmHg, no mottling
 - Dyspnoea and polypnea – 28 breaths/min, SpO₂ 90% on 8 L/min oxygen, dry cough
 - No abdominal complaints
 - Antigenic COVID test – negative



POCUS Echocardiography:

- Normal contractility
- Left ventricular concentric hypertrophy
- Normal right ventricular function

Thoracic CT with IV contrast

- Absence of PE
- Presence of diffuse alveolar consolidation and small bilateral pleural effusions

WBC	8.21 x 10 ⁹ /L	3.8 – 11 x 10 ⁹ /L		
Neutrophils	6.1 x 10 ⁹ /L	1.4 – 7.7 x 10 ⁹ /L		
Haemoglobin	11.6 g/dL	11.5 – 17.5 g/dL		
Platelets	117 x 10 ⁹ /L	150 – 400 x 10 ⁹ /L		
D-Dimer	3170 ng/mL	300 – 1400 ng/mL		
Potassium	4.8 mmol/L	3.5 – 5 mmol/L		
Chloride	101 mmol/L	96 – 106 mmol/L		
Sodium	136 mmol/L	135 – 144 mmol/L		
Lactate	1.4 mmol/L	0.5 – 2.0 mmol/L		
Glucose	7 mmol/L	3.9 – 6.1 mmol/L	126 mg/dL	70 – 110 mg/dL
pH	7.41	7.36 – 7.44		
pCO ₂	22 mmHg	22 – 45 mmHg	4.25 kPa	4.25 – 6 kPa
pO ₂	56 mmHg	80 – 100 mmHg	7.46 kPa	10.6 – 13.3 kPa
Bicarbonate	21.7 mmol/L	22 – 30 mmol/L		
Blood urea	9 mmol/L	3.5 – 8.3 mmol/L	25.2 mg/dL	10 – 23 mg/dL
Creatinine	117 µmol/L	45 – 90 µmol/L	1.33 mg/dL	0.5 – 1 mg/dL
CRP	39 mg/L	< 10 mg/L		
NT-proBNP	1014 ng/dL	< 300 ng/dL		
Troponin T HS	< 14 ng/L	< 14 ng/L		
AST (FGP)	38 IU/L	5 – 35 IU/L		
AST (FGP)	30 IU/L	< 33 IU/L		
Bilirubin	9 µmol/L	< 21 µmol/L		

Blood gas oxygen 8 L/min

CCS 2

Situation:

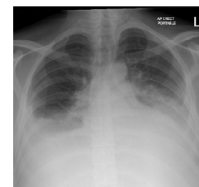
You have been asked to see a 42-year-old man on the ward because of an increasing oxygen requirement, tachycardia and worsening renal failure.

Background:

He was previously well with no reported past medical history, but was admitted to hospital 4 days ago with back pain, nausea, abdominal distension, weight loss and night sweats. He was noted to have marked splenomegaly and a microcytic anaemia. A CT scan demonstrated gross splenomegaly, widespread lymphadenopathy, ascites and pleural effusions. The haematology team were consulted and suspect a diagnosis of lymphoma. A cervical lymph node biopsy was performed. He was treated with intravenous fluids and intravenous methylprednisolone whilst the pathology results are awaited. Over the last 48 hours, he has developed shortness of breath and an increasing oxygen requirement. He is oliguric and his renal function is worsening. He is also febrile and has suddenly developed a marked tachycardia.

Assessment:

He is alert and orientated, but febrile at 38.8°C and tachypnoeic at 26 breaths per minute. SpO₂ is 89% on FiO₂ 0.40 (Venturi mask). His heart rate is 185 beats per minute with a regular narrow-complex tachycardia on ECG. His blood pressure is 122/80 mmHg. He has cool peripheries and mild peripheral oedema and his urine output is less than 30 mL/hr. His abdomen is distended but soft.



Haemoglobin	90 g/L	140–180 g/L		
White cell count	22.7 x 10 ⁹ /L	3.5–12 x 10 ⁹ /L		
Platelet count	399 x 10 ⁹ /L	150–400 x 10 ⁹ /L		
Sodium	131 mmol/L	135–145 mmol/L		
Potassium	5.7 mmol/L	3.5–5.1 mmol/L		
Phosphate	2.45 mmol/L	1–1.5 mmol/L	7.59 mg/dL	3.0–4.5 mg/dL
Urate	0.5 mmol/L	0.12–0.42 mmol/L		
Urea	19.7 mmol/L	4–8.2 mmol/L		
Creatinine	128 µmol/L	50–110 µmol/L	1.45 mg/dL	0.7–1.2 mg/dL
Lactate	3.2 mmol/L	0.5–1 mmol/L		



The Intensive Care Society

Clinical Case Scenario 3

Background

You are in charge of the trauma team in a tertiary major trauma centre in a large university hospital.

History

A 42-year-old woman was crossing the railroad whilst making a phone call. A train coming from her left side hit her. On arrival of the emergency medical crew, she was unconscious (Glasgow Coma Scale 3 points), cyanotic, with a systolic BP 60 mmHg. She was intubated at the scene without the use of drugs and bleeding of a scalp laceration was stopped by compression bandage. One intraosseous cannula was placed into the right tibia (because of poor peripheral access) and 1 L of crystalloid was given during the transfer. The transfer to your hospital took 35 minutes. Her past medical history is unknown.

On Examination

On arrival to your department, the patient is *in extremis*. There is no additional information from the ambulance crew.

A: Oral endotracheal tube 7.5 mm, fixated at 22 cm at lips.

B: On SIMV, FiO₂ 70%, PEEP 6 mbar, Vt 510 mL, RR 17 bpm, I:E 1:2.2. Pplat 15 mbar. Chest seems to be expanding normally, no surgical emphysema but rib fractures are palpable, breathing sounds are

EDIC Part II Exam, May 2022



diminished on both sides, worse on the right side. SpO₂ is not measurable because of poor signal.

C: Visibly pale, pulse palpable from large vessels only, systolic BP 45 mmHg, sinus bradycardia HR 45/min.

D: Glasgow Coma Scale 3 points (she has had no sedatives so far); pupils are symmetrical 3 mm, with sluggish response to light. She occasionally triggers the ventilator.

E: Bandage around head soaked with blood. Cervical collar is in place. Abdomen is soft and not distended. Bleeding laceration 10 x 15 cm with protruding lacerated muscle just above left popliteal fossa. Two lacerations on left elbow. There are no obvious fractures or deformities of the extremities. Bladder temperature: 32.7°C.

Initial Investigation

1 L of warmed Ringer's solution is commenced via intraosseous line. An arterial line is inserted into the right femoral artery (invasive BP 61/23 mmHg), but attempts to secure peripheral IV access fail despite four attempts.

Blood samples obtained from the arterial line show the following values:

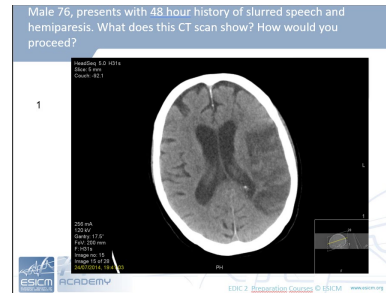
pH	7.18
pCO ₂	58.1 mmHg
pO ₂	61.2 mmHg
SpO ₂	89.2%
HCO ₃ ⁻	18.1 mmol/L
Base excess	-10.2 mmol/L
Urea	19.7 mmol/L
Cr	128 µmol/L
Glucose	7.0 mmol/L
Lactate	3.2 mmol/L
Haemoglobin	90 g/L

10 min na přípravu všech 3 CCSs
každé CCS zkoušeno 25 min



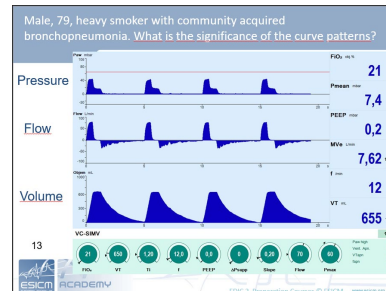
EDIC II Computer-Based Assessment

10 images



12 min (72 s / slide)

8 curves



12 min (90 s / slide)

8 biochem.

62 yr old lady with ovarian ca after chemo (paclitaxel/ carboplatin/topotecan) presents with abdo pain, nausea and anxiety

24

Potassium	6.3 mmol/l		
Calcium	1.75 mmol/l	7.0 mg/dl	
Phosphate	1.76 mmol/l	5.5 mg/dl	
LDH	2890 U/L		
Uric acid	851 umol/l	14.3 mg/dl	
Creatinine	150 umol/l	1.7 mg/dl	

Urine

Uric acid crystals

What is your diagnosis and treatment?

ESICM ACADEMY

12 min (90 s / slide)

EDIC II

Prague A

Prague B

Morning

Station A Room 1	Station B Room 2	Station C Room 3	Station D Room 4	Station E Room 5	Station F Room 6
---------------------	---------------------	---------------------	---------------------	---------------------	---------------------

Morning

Station A Room 7	Station B Room 8	Station C Room 9	Station D Room 10	Station E Room 11	Station F Room 12
---------------------	---------------------	---------------------	----------------------	----------------------	----------------------

Afternoon

Station A Room 1	Station B Room 2	Station C Room 3	Station D Room 4	Station E Room 5	Station F Room 6
---------------------	---------------------	---------------------	---------------------	---------------------	---------------------

Afternoon

Station A Room 7	Station B Room 8	Station C Room 9	Station D Room 10	Station E Room 11	Station F Room 12
---------------------	---------------------	---------------------	----------------------	----------------------	----------------------

EDIC II - Big Blue Button Platform

The screenshot displays the Big Blue Button interface. On the left is a sidebar with sections: MESSAGES (Public Chat), NOTES (Shared Notes), and USERS (1) (examiner (You)). The main area shows a presentation slide with the ESICM logo and the text "CBS 1 – Images EDIC Part II Exam – November 2021". The top of the interface includes "Prague - Exam Centre A - Station A" and a "Start recording" button. A "Current presentation" notification in the top right corner reads "CBS1 Images E". The bottom of the interface features a navigation bar with a plus sign, microphone, phone, and screen sharing icons, and a footer with "© ESICM 2014 – Document Confidential" and "www.esicm.org".



EDIC II tOSCE iPad app

Task	Question	Points	Score
Task 1	1) What type of patient-ventilator interaction is shown? 2) What is the most likely cause?	(max. 2)	1.0
	Wasted efforts/ineffective efforts/failure to trigger the ventilator	(1 Point)	
	Dynamic hyperinflation	(1 Point)	
Task 2	1) Describe the abnormalities. 2) What are the most likely explanations for the abnormalities observed?	(max. 3)	1.0
	Loss of P-waves, broad QRS-complex, tall peaked T-waves (must mention all)	(1 Point)	
	Hyperkalemia.	(1 Point)	
	AKI due to combination of DM/HT and ACEi / NSAID	(1 Point)	
Task 3	What does this tracing of arterial blood pressure (red trace) and heart rate (green trace) show?	(max. 1)	?
	Autonomic dysregulation	(1 Point)	
Task 4	1) Describe the abnormalities. 2) What is your diagnosis?	(max. 2)	?
	ST elevation in inferior leads and V4-6; ST depression in I, aVR and aVL and V1-3	(1 Point)	
	Acute infero-postero-lateral STEMI	(1 Point)	
Task 5	Which two patient-ventilator asynchronies are present?	(max. 2)	?
	Double triggering	(1 Point)	
	Premature cycling-off	(1 Point)	



Items management system (UCAN)

The screenshot shows the IMS² UCAN web interface. At the top, the user is identified as Petr Waldauf. The interface includes a navigation menu on the left with sections for Pool-filter (Personal, Group, Community), Classification filter (EDIC&SGI, EDIC 1, EDIC 2, Basic Content), and Item type filter. The main content area displays a table of items with columns for nr, Entity ID, Item ID, and Title.

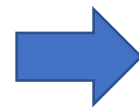
nr	Entity ID	Item ID	Title
1	686625	1066446	CCS 1 - May 2019
2	687761	1041376	CCS 3 - May 2019
3	686613	1041374	CCS 2 - May 2019
4	683504	1041373	CBS 3 - Biochemistry - May 2019
5	681733	1041372	CBS 2 - Curves - May 2019
6	682545	1036600	CBS 1 - Imaging - May 2019



iPads
tOSCE



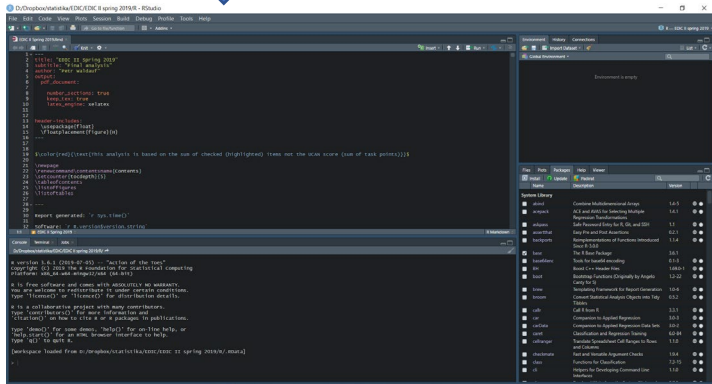
IMS server, UCAN,
Heidelberg, Germany



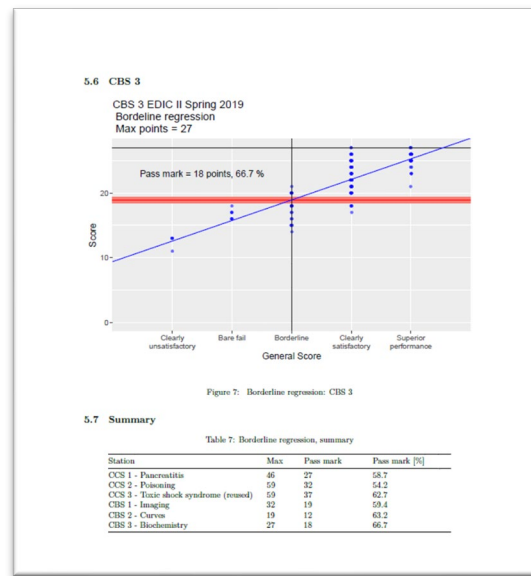
Raw data



Raw data



Preliminary results

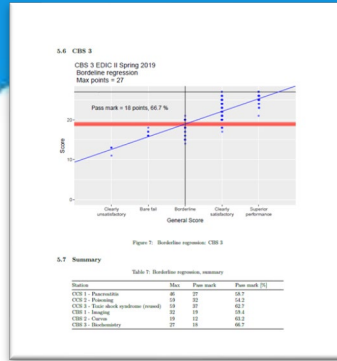


Pass mark



Items' performance

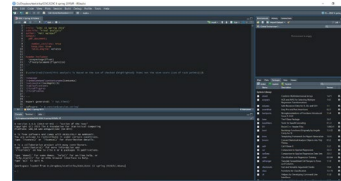
Preliminary results



Items' performance
+
Examiners' feedback

EDIC II key validation meeting
~ 3 weeks after the exam

Elimination of wrong/poor items



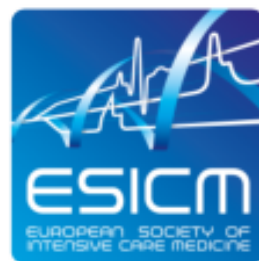
Final results



EDIC II autumn 2022 v3 - final results

Dataset: 18.11.2022

Petr Waldauf



The Intensive Connection

Report generated: 2022-12-01 12:33:48

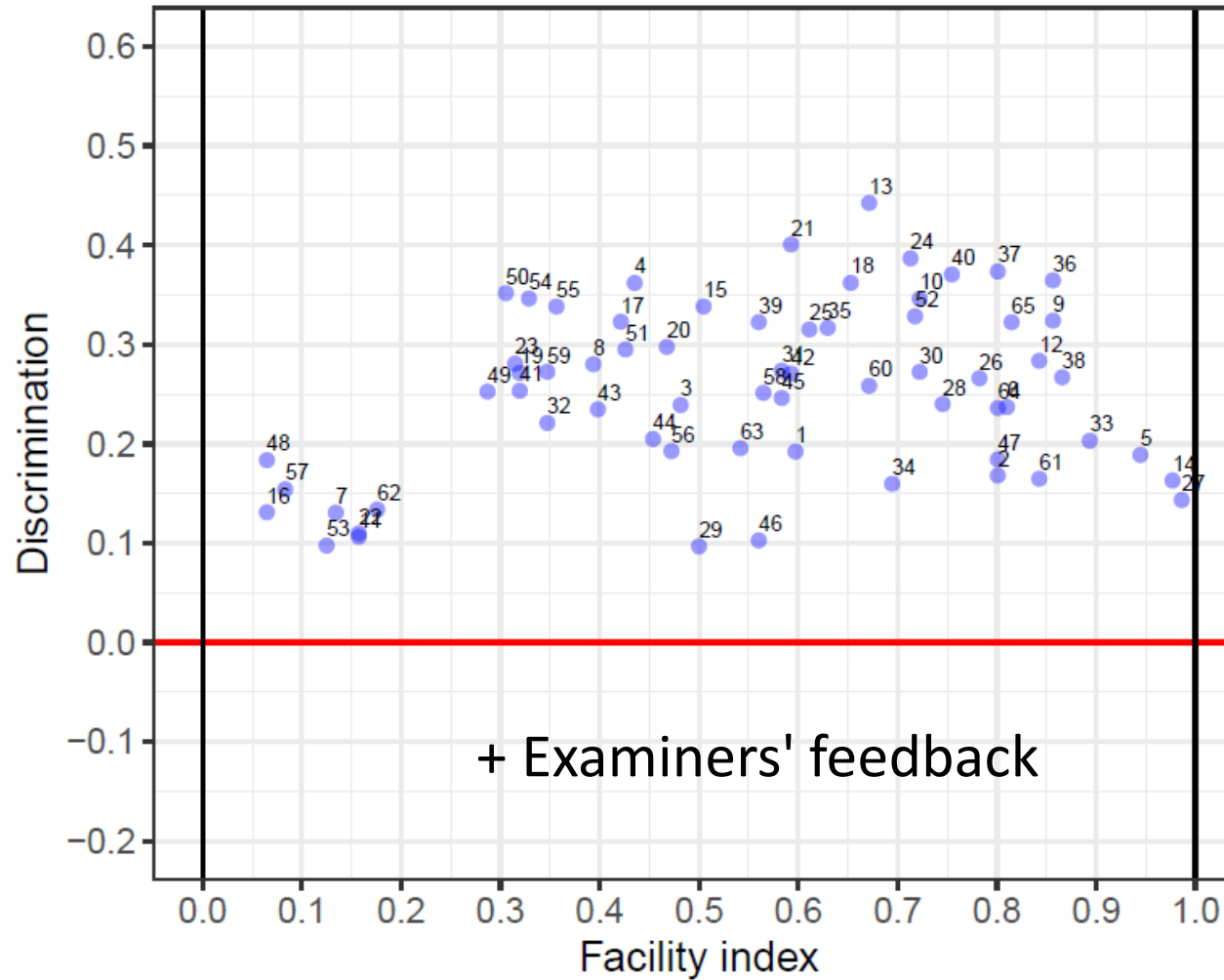
Software: R version 4.2.2 (2022-10-31 ucrt) + R Markdown

Contents

1	Raw data	4
1.1	Number of candidates	4
2	Eliminated items	6
3	Setting of the pass mark (Borderline regression)	7
3.1	CCS 1	7
3.1.1	Distribution of borderline candidates' scores	8
3.2	CCS 2	9
3.2.1	Distribution of borderline candidates' scores	9
3.3	CCS 3	11
3.3.1	Distribution of borderline candidates' scores	11
3.4	CBS 1	13
3.4.1	Distribution of borderline candidates' scores	13
3.5	CBS 2	15
3.5.1	Distribution of borderline candidates' scores	15
3.6	CBS 3	17
3.6.1	Distribution of borderline candidates' scores	17
3.7	Summary	19
4	Results	20
4.1	Pass rate	20
4.1.1	By by centre	22
4.1.2	By region (billing country)	24
4.1.3	By slot (A,B,C)	30
4.2	CCSs + CBSs	33
4.2.1	By exam centre	35
4.2.2	Correlation between stations	37
5	Item analysis (classical test theory)	39
5.1	CCS 1	39
5.1.1	Answers	39
5.1.2	Questions	42
5.2	CCS 2	44
5.2.1	Answers	44
5.2.2	Questions	47
5.3	CCS 3	49

Statistical properties of answers

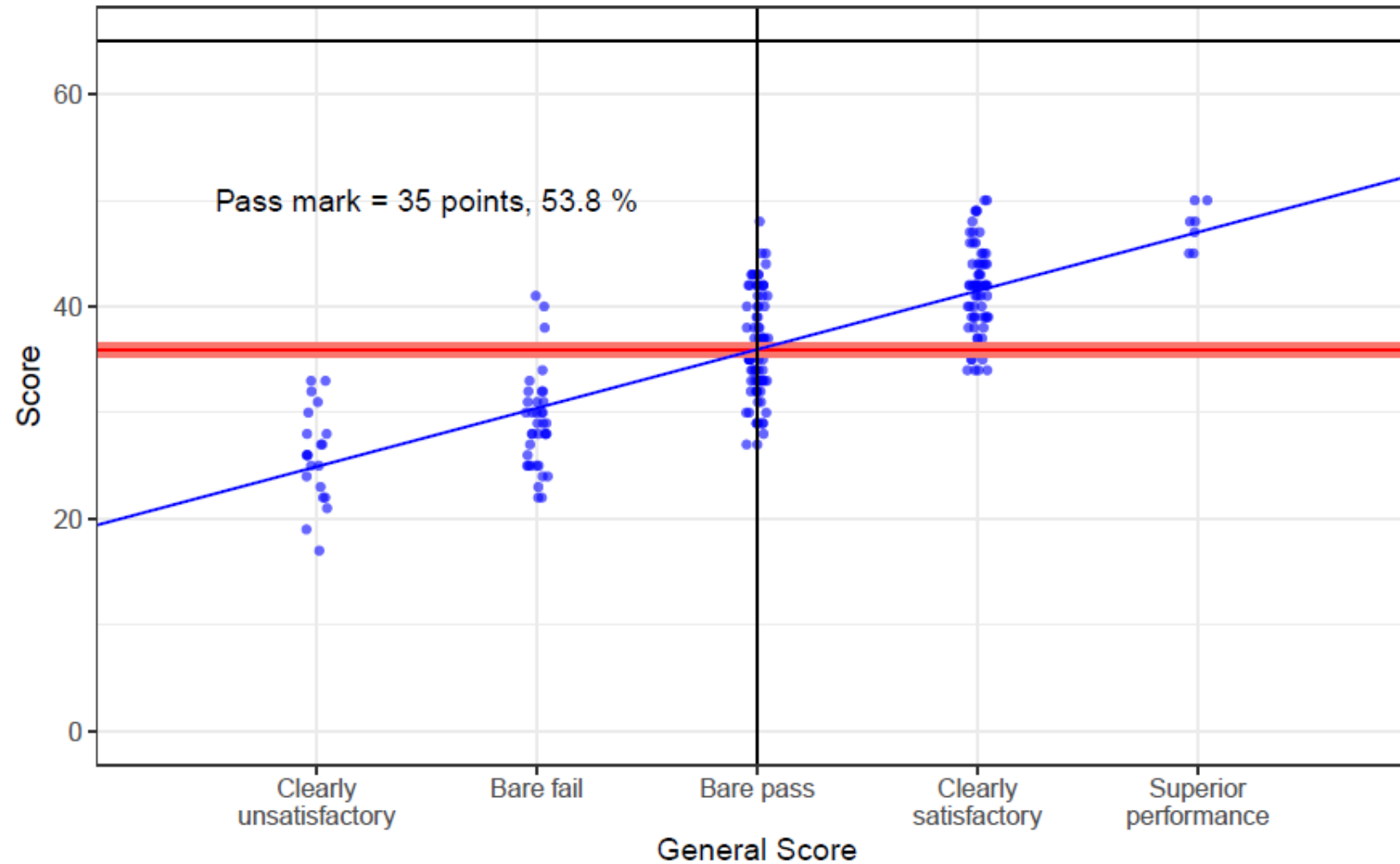
CCS 1 EDIC II Spring 2022



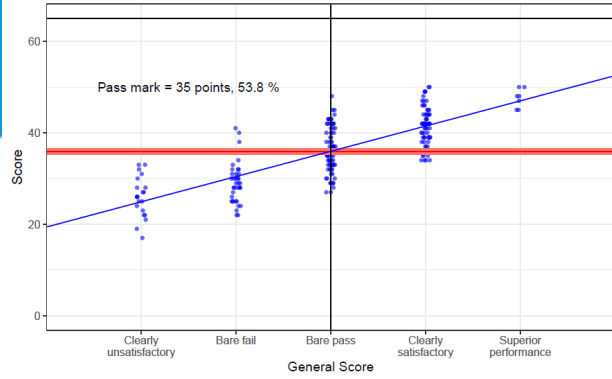
Pass mark settings, borderline regression

CCS 1 EDIC II Spring 2022
Borderline regression
Max points = 65

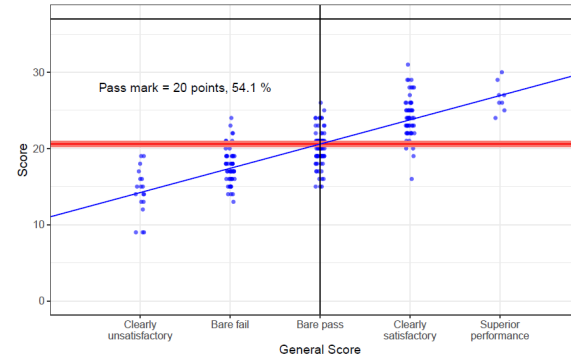
„wisdom of crowds“



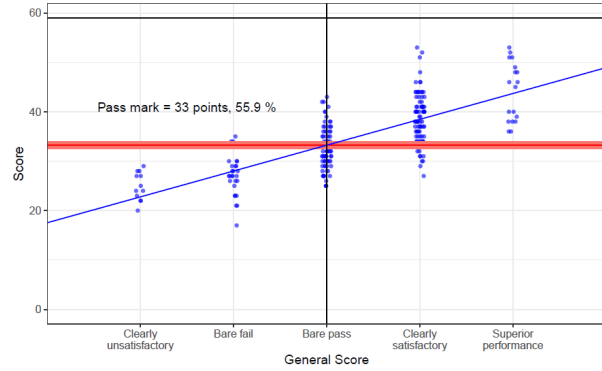
CCS 1 EDIC II Spring 2022
Borderline regression
Max points = 65



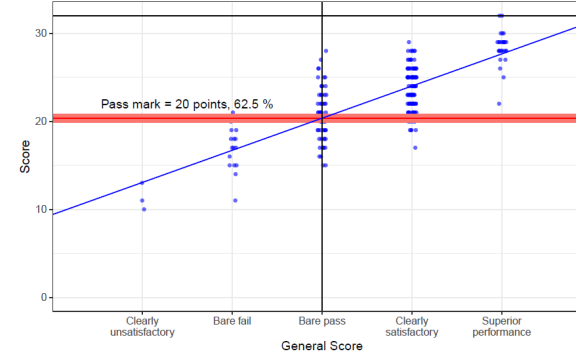
CBS 1 EDIC II Spring 2022
Borderline regression
Max points = 37



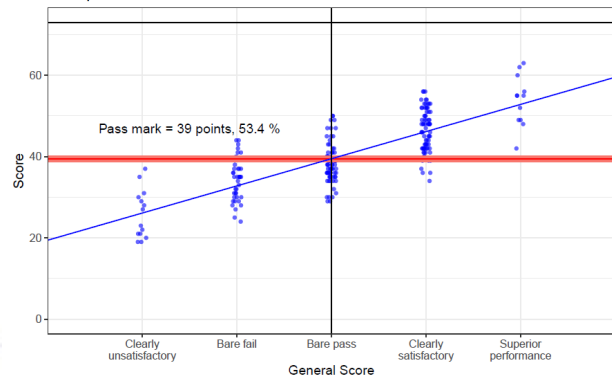
CCS 2 EDIC II Spring 2022
Borderline regression
Max points = 59



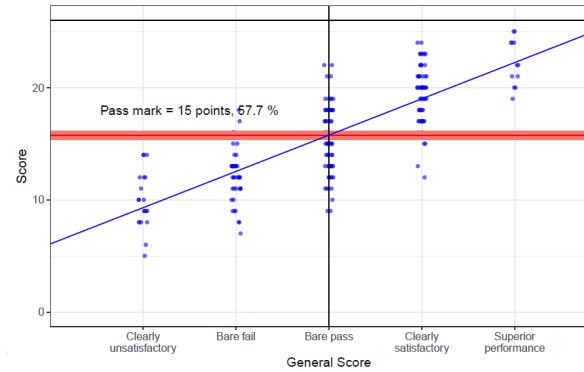
CBS 2 EDIC II Spring 2022
Borderline regression
Max points = 32



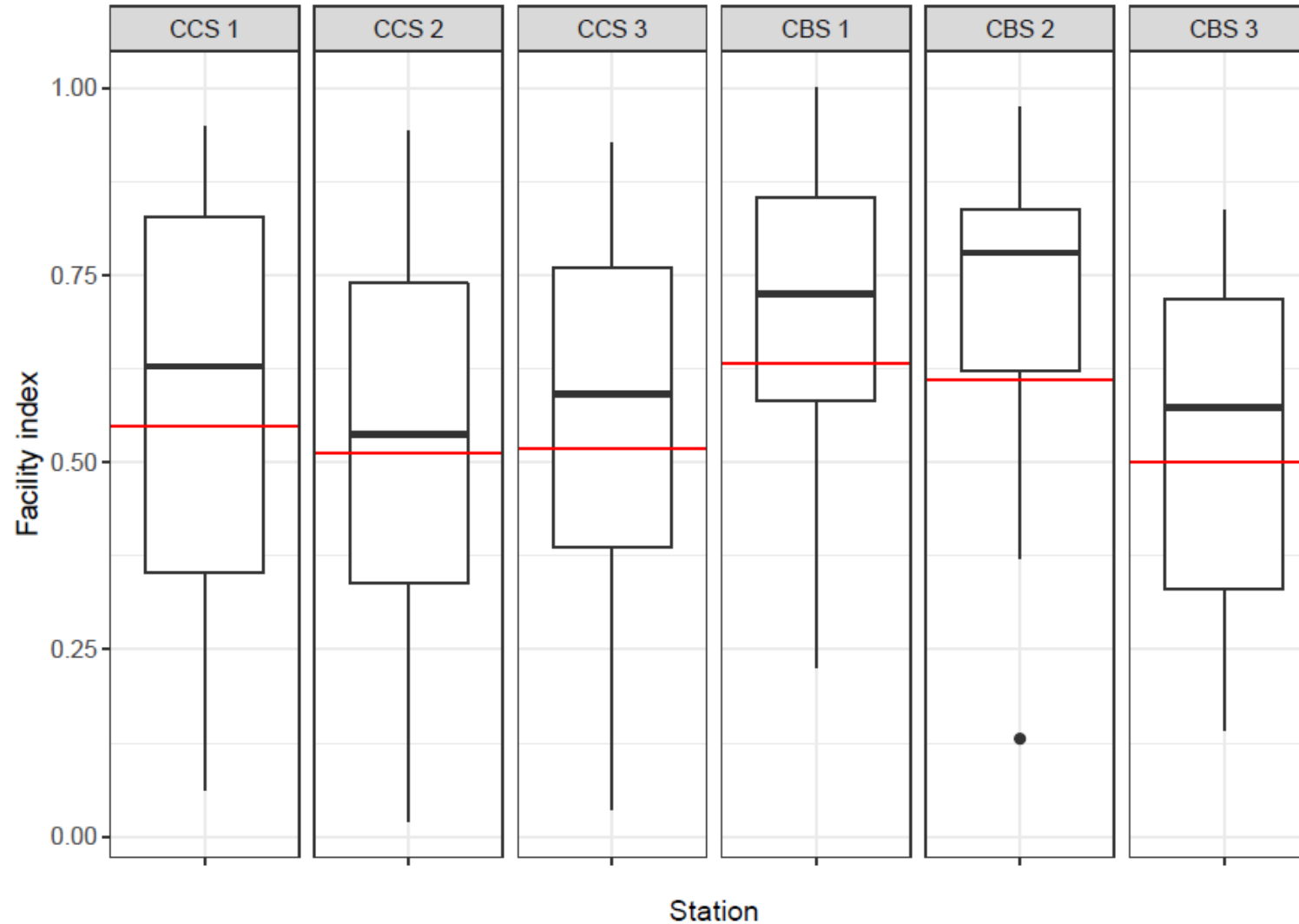
CCS 3 EDIC II Spring 2022
Borderline regression
Max points = 73



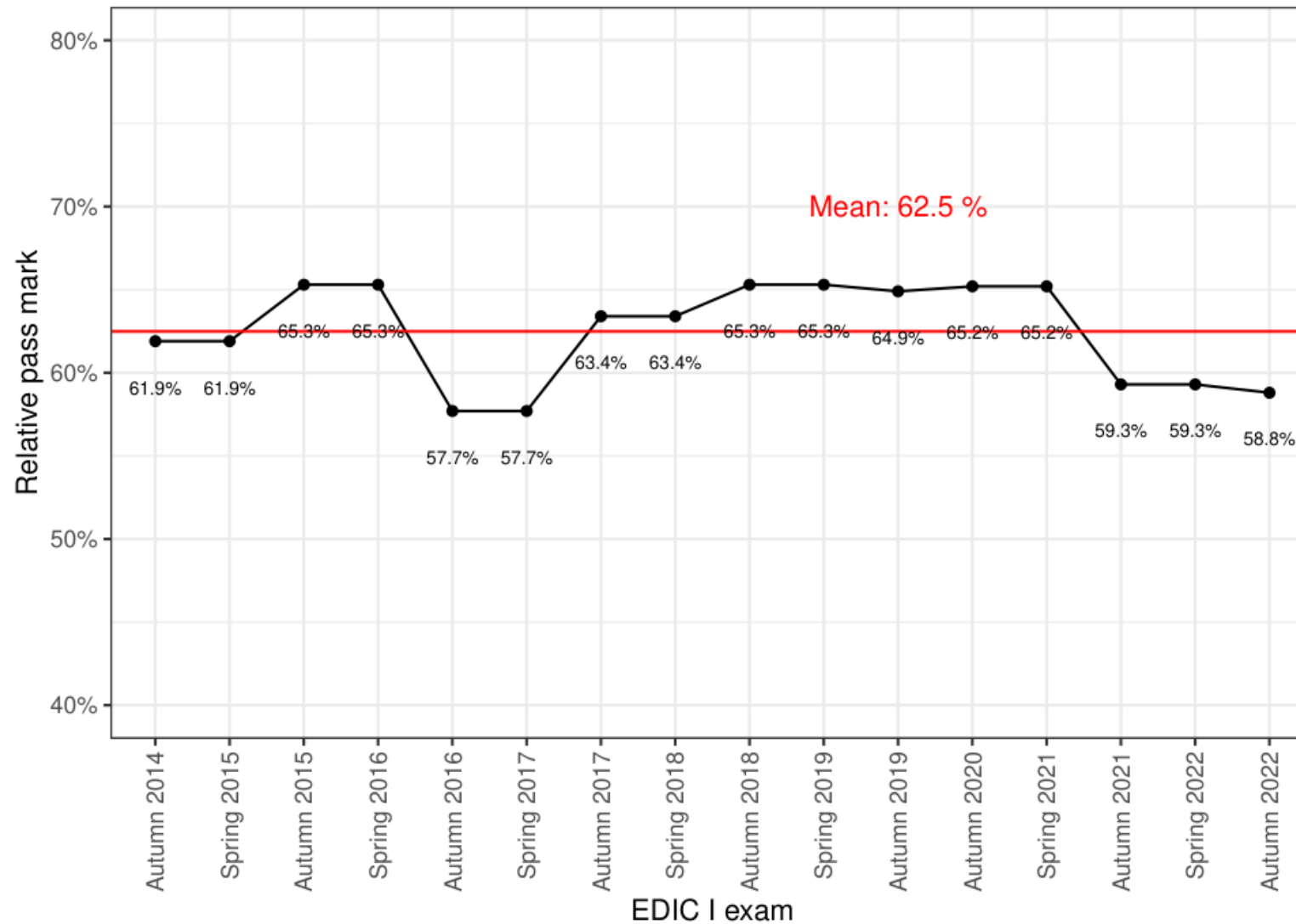
CBS 3 EDIC II Spring 2022
Borderline regression
Max points = 26



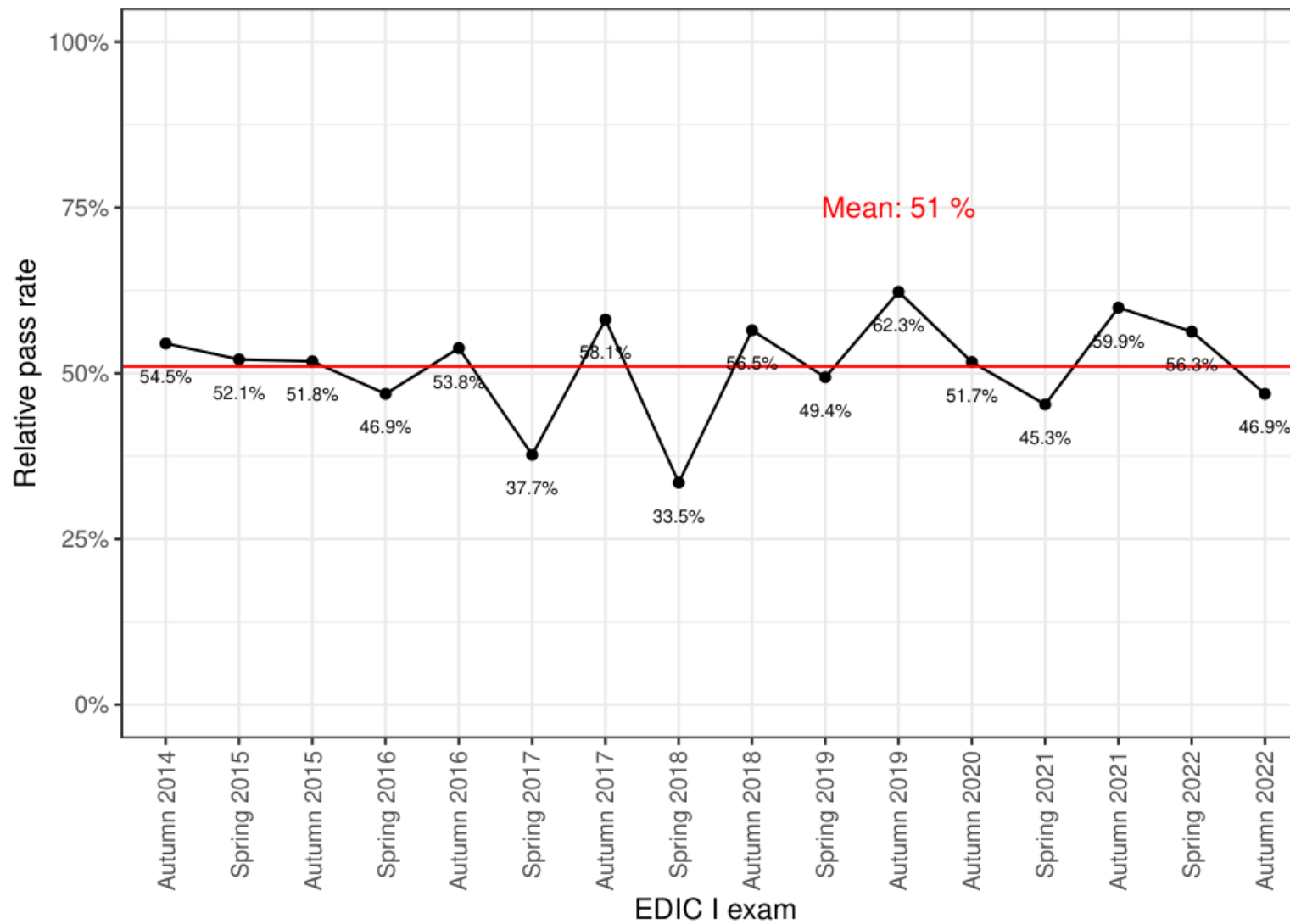
EDIC II autumn 2021 facility index vs pass mark



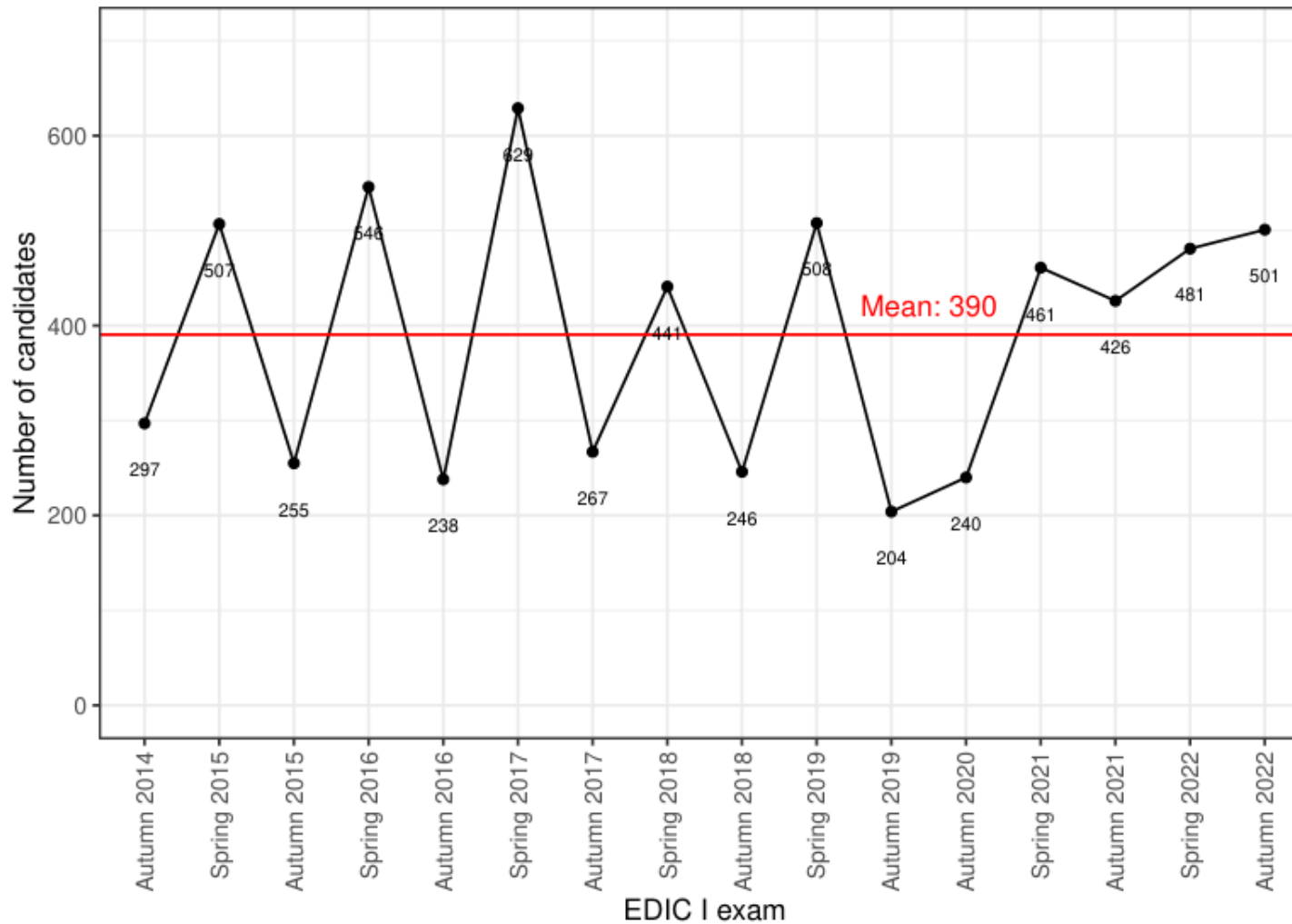
EDIC I: relativní pass mark



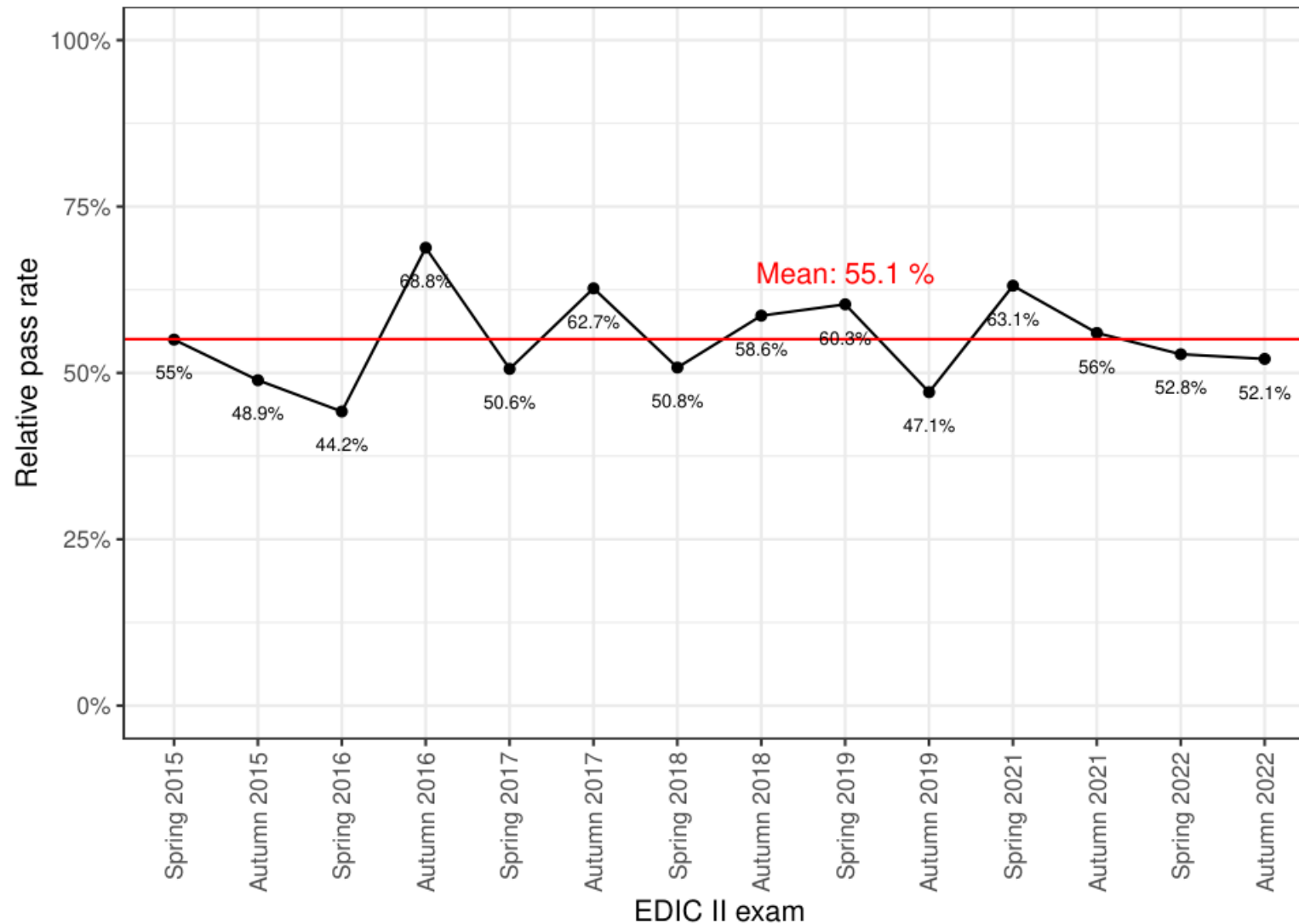
EDIC I: relativní pass rate



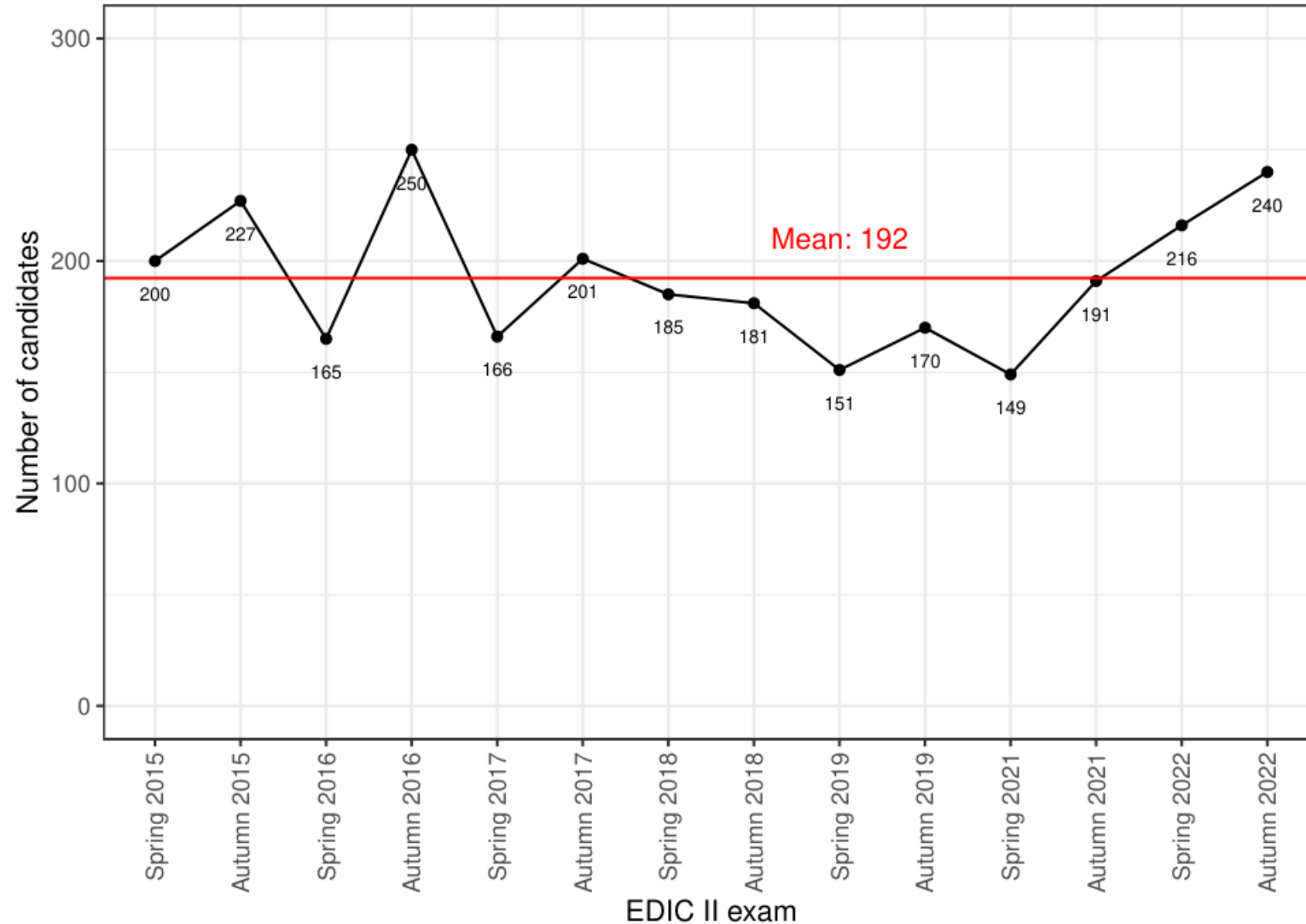
EDIC I: počet kandidátů na termín zkoušky



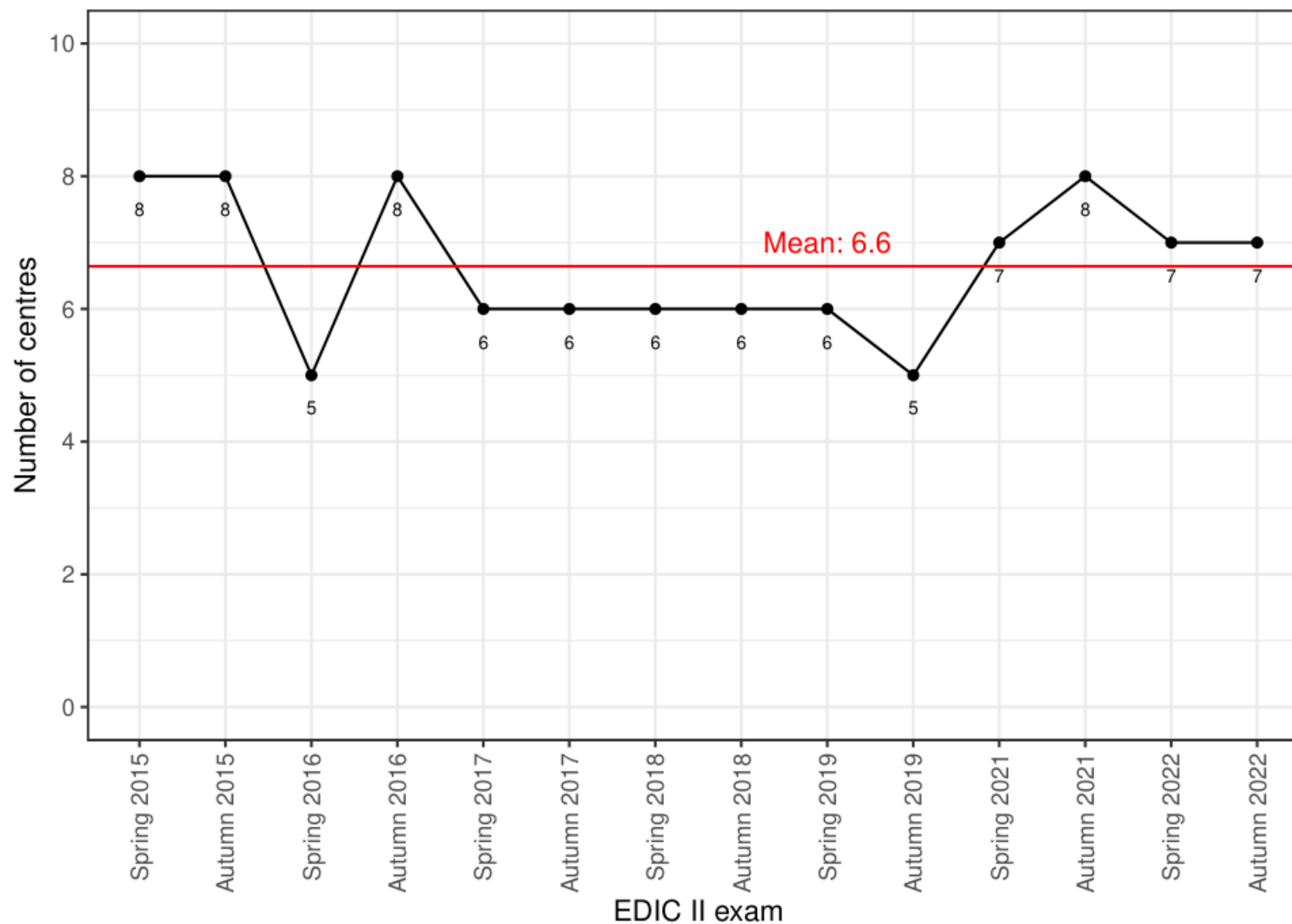
EDIC II: relativní pass rate



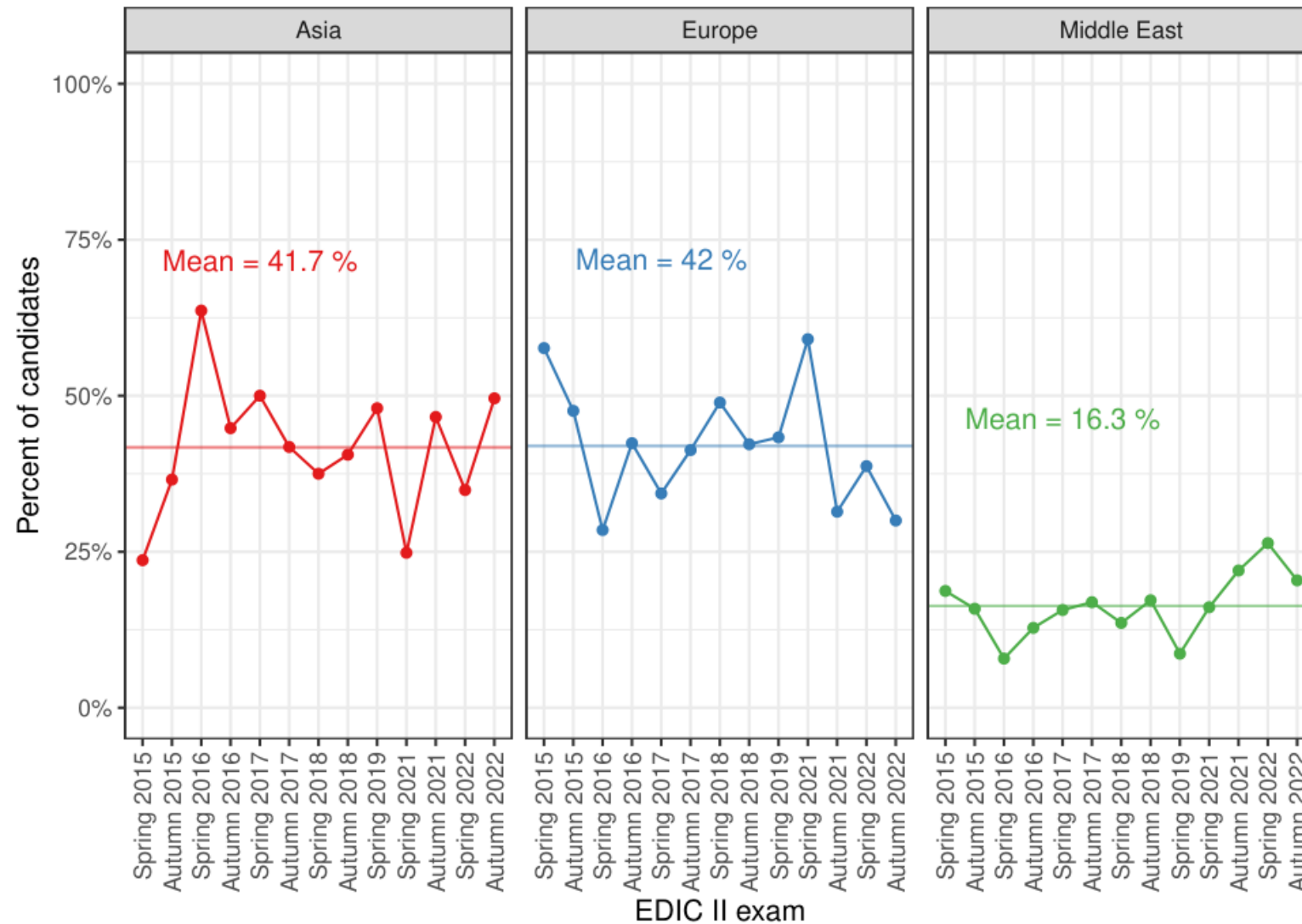
EDIC II: počet kandidátů na termín zkoušky



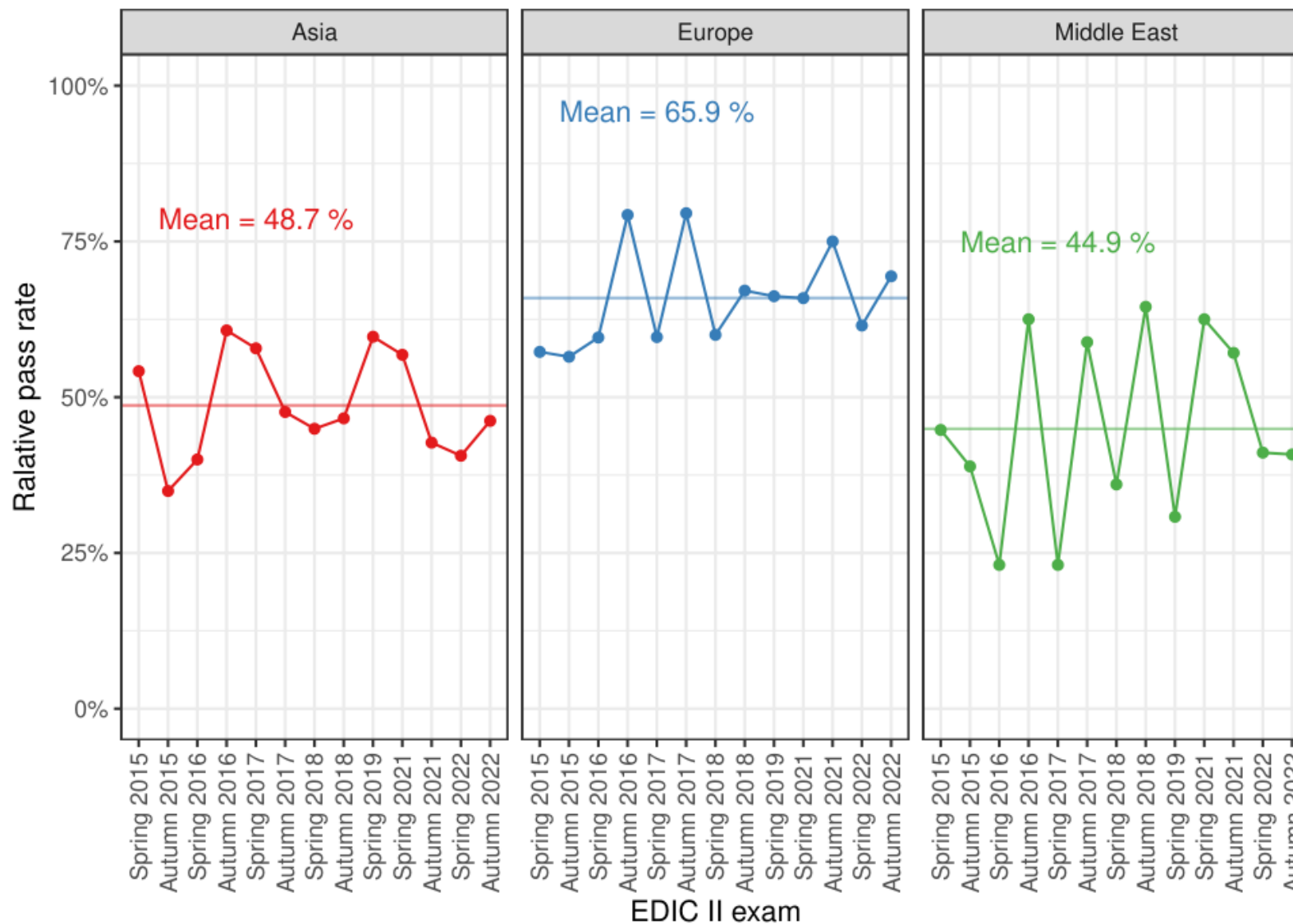
EDIC II: počet center na termín zkoušky



EDIC II: zastoupení kandidátů podle regionu



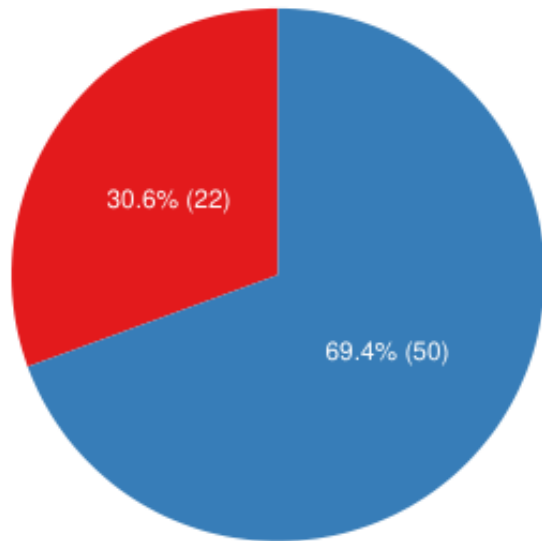
EDIC II: relativní pass rate podle regionu



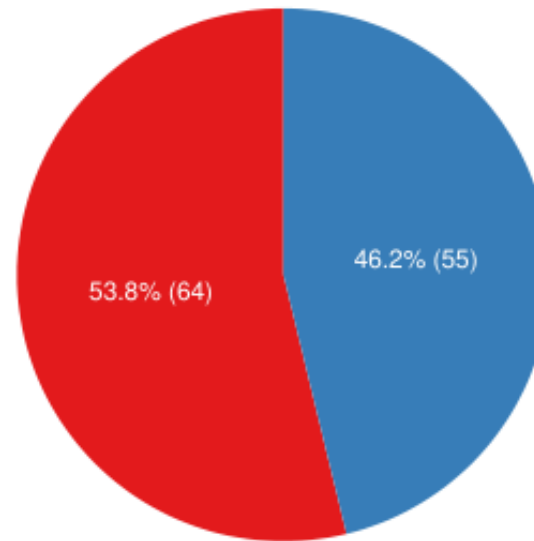
EDIC II podzim 2022: relativní pass rate podle regionu

EDIC II Autumn 2022

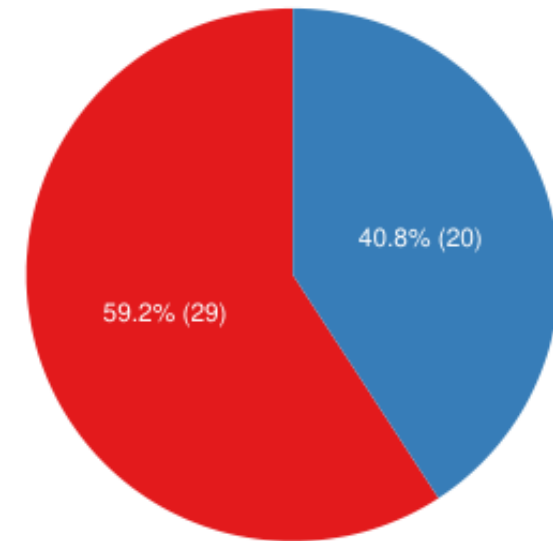
Europe & Australia & America



India & other Asia



Middle East & Africa

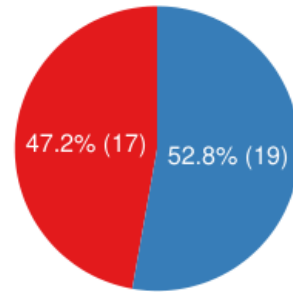


Failed Passed

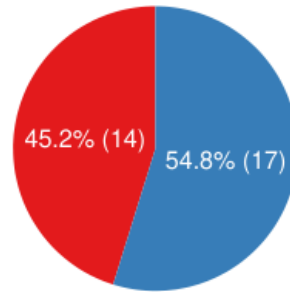
EDIC II podzim 2022: relativní pass rate podle centra

EDIC II Autumn 2022

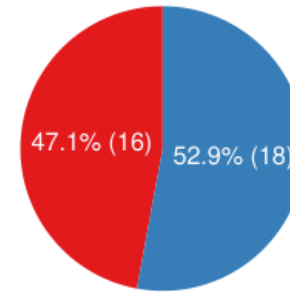
Brussels



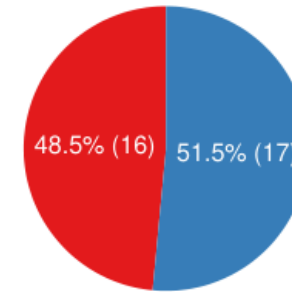
Copenhagen



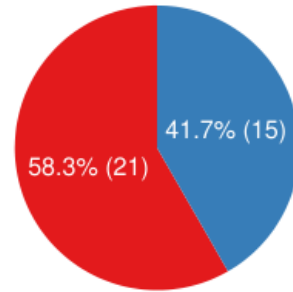
Dublin



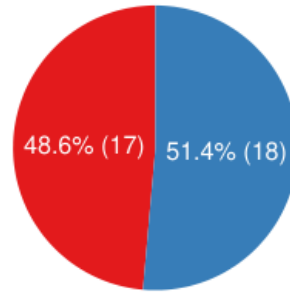
London



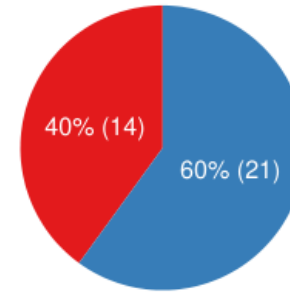
Porto



Stuttgart



Vienna



Failed Passed

Děkuji za pozornost