Towards a national exam in medical education – experiences with the pilot in 2017

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http://www.med.uio.no/om/prosjekter/nasjonal-delprove-medisin/

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Context

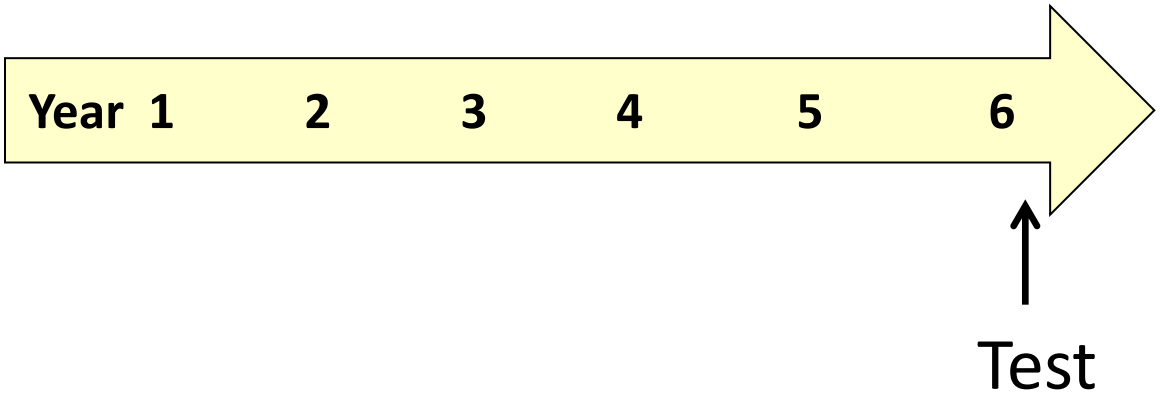
- Increasing political interest in national exams
- NOKUT (the Norwegian Agency for Quality Assurance in Education) has established exams for some programs
- Internationally, national medical (licensing) exams are common
  - Germany, USA, Canada, Switzerland …

Background

- March 2015 – the national educational assembly in medicine established a project group to prepare a written, digital test in clinical reasoning in the final semester
- December 2015 – the Assembly of Deans decided that a partial test should be conducted
- March 2017 – first national test conducted
- **Aims** – to inform the students about their academic level, as well as provide an opportunity to compare the students' performance across faculties

The test

- A mandatory activity
- Formative feedback (not grades) to each student
- Scores from the test not on the student's diploma
- Feedback to universities – benchmarking



Learning goals/outcomes?

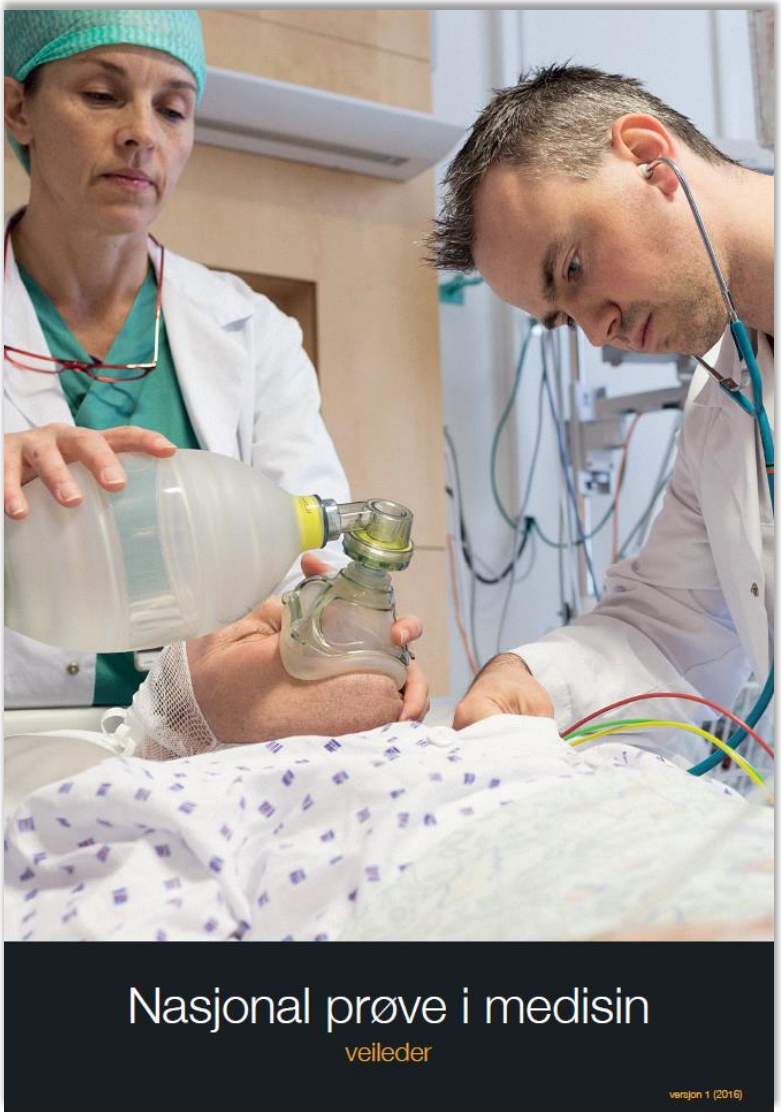
- We lack a national curriculum (so far)
- Varying degree of specification of learning goals/outcomes in curriculums
- Need a mechanism to secure that the test and questions are grounded in local curricula
  - Formulate learning goals/outcomes first? … or
  - Ground questions in existing curriculums?

National academic committees

- The fields selected for the pilot included cardiology, thoracic surgery, gastroenterology, gastric surgery, nephrology and urology
- The questions were aimed at targeting the competence requirements in the programmes and to include perspectives from general practice
- Committees with representatives from all universites for each subject/domain of the test – secure agreement that a topic is covered in the curriculum («content validity»)

Format

- Digital test – clinical reasoning
- 120 questions / 4 hours (i.e. 120 sec./question)
- Multiple choice: Single-best answer
- Some questions/items in sequence



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Example

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En 41 år gammel kvinne kommer til deg og klager over magesmerter. Det siste året har hun gått ned 10 kg i vekt, hun har periodevis betydelig diare – vanndige tømninger 6-8 ganger om dagen, sjelden om natten. Hun har merket at hun flere ganger om dagen får kraftig rødme og varmefølelse i ansiktet. Hva er mest sannsynlige diagnose?

A Kolorektal kreft med spredning
Vanndige tøminger og spesielt flushing passer ikke.
B Irritabel tarm syndrom
Vekttap, flushing passer ikke.
C X Nevroendokrin tynntarmstumor med levermetastaser
Riktig svar. Flushing, diare og vekttap passer med metastaserende nevroendokrin tynntarsmtumor.
D Ulcerøs colitt og primær skleroserende cholangitt
Vanndige tømninger og flushing passer ikke.

Quality assurance of the test

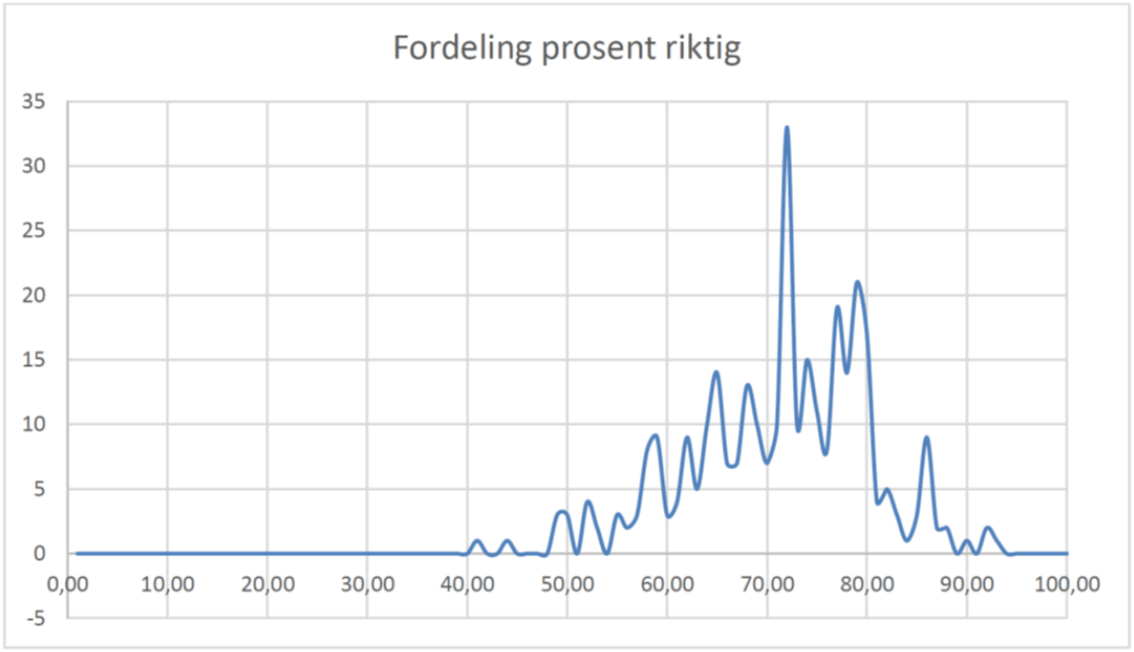
- 3 external peer reviewers (per committee); young doctors, GPs, specialist
  - A total of 12 (7 %) items were deleted, and the academic committees made a number of adjustments in the remaining items
- Feedback from students
- Post hoc psychometric analyses

Results

- 319 (83 %) of 384 possible candidates sat the test
- The attendance rate was in the range of 73 % – 94 % at different universities
- The students provided feedback on 40 of the items
  - 6 items (5%) deleted
  - For 5 items, two (out of four) answers were accepted as the best answer

Results

- The average correct score was 71 % [from 41 % to 91 %]
- The test discriminated well



Feedback

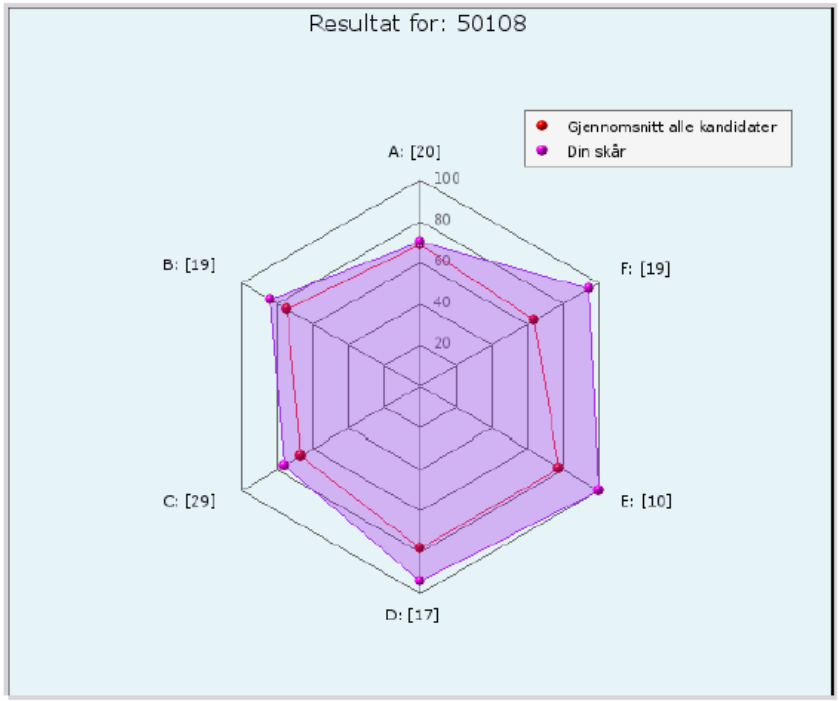
- Students' own score
- Prosentile – own university
- Average national score
- Spider diagram with score per field

Resultater for 50108 på Nasjonal delprøve 2017

Du oppnådde 84% riktige svar samlet sett. Nasjonalt gjennomsnitt på prøven var 71%.
Under ser du delskårene innen ulike deler av prøven. Blant kandidatene på eget fakultet ligger du samlet sett på 95. prosentilen.
(At man er på for eksempel 75. prosentil betyr at man er blant de 25 % som skåret høyest på eget fakultet.)

Tabell: Fordeling av oppgavene på fagområder

ID	Fagområde	Antall oppg.	Nasjonalt snitt (%)	Prosentil på eget fakultet
A	Gastroenterologi	20	69	60
B	Gastrokirurgi	19	75	85
C	Kardiologi	29	67	90
D	Nefrologi	17	78	95
E	Thoraxkirurgi	10	78	95
F	Urologi	19	64	95



Students' experiences and opinions

- Survey after the test (response rate 48 %):
  - The test is a positive imitiative (84 %)
  - 68 % think that one should work towards a national final exam
  - Improve the digital interface
  - More focus on primary health care
  - The test needs to be mandatory for all

Future perspectives

- The test (exam) has the potential to replace (partially) the local written final exam?
- If it is converted to a summative exam we need explicit learning outcomes in local course descriptions (work in progress)
- New test in 2018, further scaling up in 2019, and a national exam in 2020?
- Include/offer test/exam to studens from abroad?

References

Homepage for the project:

- http://www.med.uio.no/om/prosjekter/nasjonal-delprove-medisin/

Articles:

- http://tidsskriftet.no/2016/03/kommentar-og-debatt/mot-en-nasjonal-delprove-i-medisinstudiet
- http://tidsskriftet.no/en/2017/09/kronikk/common-test-medical-students-norway

Report:

- http://www.med.uio.no/om/prosjekter/nasjonal-delprove-medisin/aktuelle-saker/rapport_nasjonal-delprove_2017.pdf