Feasibility of an electronic patient safety checklist -across elective surgical pathways

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Patient's surgical Safety Checklist - PASC

- Poor uptake and -understanding of critical perioperative information represent a safety risk for surgical patients.
- Checklists for patient utilisation can reduce inhospital stay, complications and readmissions¹
- PASC- developped and validated for use in Norwegian hospitals - 2018^{2,3}

Aim:

To empower patient involvement in surgical pathways, to reduce complications and improve patient safety.

- 1) Hardiman KM, et al. Patient autonomy–centered self-care checklist reduces hospital readmissions after ileostomy creation. Surgery2016;160(5):1302-08. doi: https://doi.org/10.1016/j.surg.2016.05.007
- 2) Harris K, et al. Patients' and healthcare workers' recommendations for a surgical patient safety checklist –a qualitative study. BMC Health Services Research2020;20(1):43. doi: 10.1186/s12913-020-4888-1
- 3) Harris K, et al. Development and validation of patients` surgical safety checklist. BMC Health Serv Res 22, 259 (2022). https://doi.org/10.1186/s12913-022-07470-z

Harris et al. BMC Health Services Research https://doi.org/10.1186/s12913-020-4888-1

BMC Health Services Research

RESEARCH ARTICLE

Open Access

Patients' and healthcare workers' recommendations for a surgical patient safety checklist – a qualitative study



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Abstrac

Background: Patients' involvement in patient safety has increased in healthcare. Use of checklists may improve patient outcome in surgery, though few have attempted to engage patients' use of surgical checklist. To identify risk elements of complications based on patients' and healthcare workers' experiences is warranted. This study aims to identify what the patients and healthcare workers find to be the risk elements that should be included in a patient-driven surgical patient safety checklist.

Method: A qualitative study design where post-operative patients, surgeons, ward physicians, ward nurses, and secretaries from five surgical specialties took part in focus group interviews. Eleven focus groups were conducted including 25 post-operative patients and 27 healthcare workers at one tertiary teaching hospital and one community hospital in Norway. Based on their experiences, participants were asked to identify perceived risks

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RESEARCH

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Development and validation of patients' surgical safety checklist

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Abstrac

Background: Poor uptake and understanding of critical perioperative information represent a major safety risk for surgical patients. Implementing a patient-driven surgical safety checklist might enhance the way critical information is given and increase patient involvement in their own safety throughout the surgical patiway. The aim of this study was to develop and validate a Surgical Patient Safety Checklist (PASC) for use by surgical patients.

Method: This was a prospective study, involving patient representatives, multidisciplinary healthcare professionals and elective surgical patients to develop and validate PASC using consensus-building techniques in two Nonvegian hospitals. A set of items intended for PASC were rated by patients and then submitted to Content Validation Index (CVI) analyses. Items of low CVI went through a Healthcare Failure Mode and Effect Analysis (HFMEA) Hazard Scoring process, as well as a consensus process before they were either kept or discarded. Reliability of patients PASC ratings was assessed using Intraclass Correlation Coefficient analysis. Lastly, the face validity of PASC was investigated through focus group interviews with postoperative patients.

Results: Initial development of PASC resulted in a checklist consisting of two parts, one before (32 items) and one after surgery (26 items). After achieving consensus on the PASC content, 215 surgical patients from six surgical wards rated the items for the CVI analysis on a 1-4 scale and mostly agreed on the content. Five items were removed from the checklist, and six items were redesigned to improve PASCs' user-friendliness. The total Scale-level index/Average (S-C-V/Ave) before revision was 0.83 and 0.86 for pre- and post-operative PASC items, respectively. Following revision, these increased to 0.86 and 0.93, respectively. The PASC items reliability score was 0.97 (95% confidence interval 0.96 to 0.98). The qualitative assessment identified that patients who used PASC felt more in control of their situation; this was achieved when PASC was given to them at what they felt was the right time and healthcare professionals took part in its usage.

Conclusion: Multidisciplinary perioperative care staff and surgical patients agreed upon PASC content, the checklist ratings were reliable, and qualitative assessment suggested good face validity. PASC appears to be a usable and valid checklist for elective surgical patients across specialities.

Keywords: Surgery, Checklist, Patient safety, Patient's surgical safety checklist, Patient involvement











Surgical pathway





Surgical treatment

Follow-up care

Rehabilitation

Pre-Opr



WHO-SSC



Post-Opr





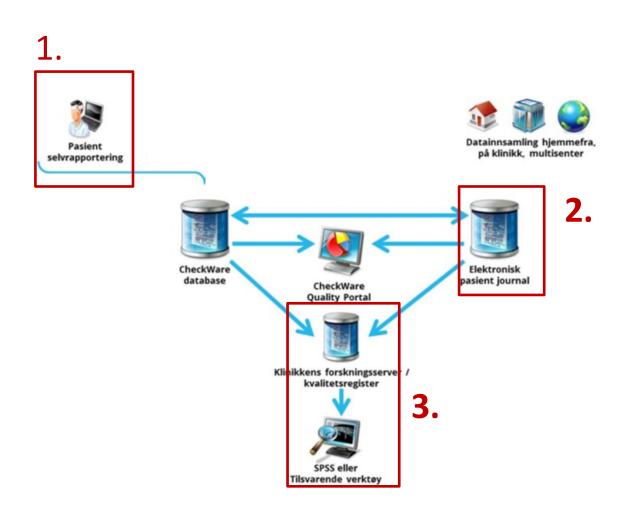
e-PASC intervention

Delivered by Checkware, in collaboration with Helse Vest IKT

Objective

To investigate the feasibility of the e-PASC from a patient and healthcare perspective

"Feasibility is defined as the extent to which a new treatment, or an innovation, can be successfully used or carried out within a given agency or setting"





Methods

Setting: Two Norwegian hospitals, Western Norway Regional Health Authority

Surgical specialties: Orthopedic-, Gastrointestinal-, Neuro-, Breast and endocrinological-Thoracic-, Generals and Ear- Nose and Maxillofacial surgery.

Participants: Five patiens from seven surgical clusters (N= 35) invited

Data collection:

- Patients: Single telephone interviews with 2-5 weeks postoperatively, at dates agreed upon
- Checklist-item compliance reports
- Hospital staff: Planning- and evaluating meetings before- and after e-PASC distribution, at hospital wards/ digital meetings.

Results: patients perspective

- Need of a reminder-text message for PASC part 1 and 2
- Need of dialogue with nurses and doctors, especially on expctations
- Language: readability OK, consistency Ok
- Time spent: not too time consuming
- Log on: no problems, no need for assistance
- Device: mobile phone, or tablets. Few used computers
- MST: Not used by any=> why?

«Important that patients are not left with responsibility, but the possibility to interact»

Quote from female patient

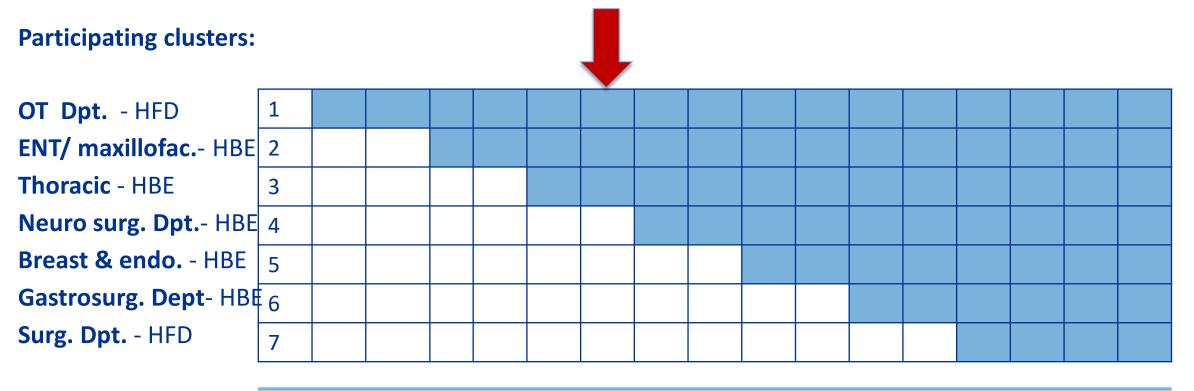
Results: healthcare personell's perspective

- Recruitment of patients; responsibility of roles and tasks
- Workflow adaptations involving PASC inuqiries and checks
- Thorough mapping of all the surgical pathways
 - Patient information- when, and which points of care
 - Recruitment of patients
 - Collction of signed consent forms and competed checklist (paper)

«Enquiries from healtcare personell increased awareness of PASC, and motivated utilisation»



The Multi-center Stepped Wedge Cluster Randomised Control Trial of PASC Implementation



Mai Juni Juli Aug Sep Okt Nov Des Jan Feb Mars Apr Mai Juni Juli Aug +?

2022



Patient's surgical Safety Checklist - PASC



PASC: NFR- grant, project no.: 320475 - KSPSAMARBEID20

"Implementation of Patients Safety Checklist (PASC) in Surgery, a Stepped Wedge Cluster RCT - Effects on Patient and Implementation Outcomes"

Primary outcomesl:

- Postoperative complications
- Mortality
- Length of stay
- Hospital re-admissions
- Health economy

Secondary outcomes:

- Patient experienc in using PASC, MST and guidance, Health litteracy
- Healtcare personnels experiences with PASC

Before

Målet med sjekklisten er å forebygge komplikasjoner som kan oppstå i operasjonsforløpe

Bruk sjekklisten aktivt ved å krysse av på JA eller NEI på sjekklistepunktene.

Har du spørsmål når du går gjennom sjekklisten, skriv dem ned og ta med til sykehuset Hvis nødvendig kontakt sett inn avdelings kontakt informasjon her.

Viktige punkter du bør tenke igjennom før operasjone

- □ NEI, gå til punkt 4
- ☐ JA, lær deg navn, utseende, tidspunkt du tar medisinene og hvorfor du tar den
- 2. Bruker du blodfortynnende medisiner?
- ☐ NEI
- □ JA, er du informert om du skal stoppe eller når du skal stoppe med dem før din operasjon? Hv

After

r, sår som ikke gror eller blir du

eg før innleggelse, ring

dene bestill time hos fastlegen.

handling, medisinsk behandling, væ

alkohol og andre rusmidler i god tid

kosthold før operasjon kan redusere

Bruk sjekklisten aktivt ved å <u>krysse av på JA eller NEI</u> på alle sjekklistepunkter.

Hva trenger du å være informert om før du reiser hjem? Les gjennom spørsmålene under før du snakker med legen og sykepleieren som skal skrive deg ut. Be om skriftlig informasjon ved behov.

Komplikasjoner

- 28. Er du informert om komplikasjoner som kan oppstå
- □ JA
- 29. Er du informert om hva du skal gjøre hvis du får komplikasjoner eller blir akutt syk?
- JA .
- NEI, be om informasjon fra legen som skriver deg u
 - IEI ☐ Ikke aktuelt
- JA, avklar med sykepleieren din eller legen som skriver deg ut hvor lenge du skal bruke de

Aktivitet og restriksjon
31. Er du informert om når du kan kjøre bil igjen

- □ NEI, avklar med lege/sykepleier som skriver deg ut
- 32. Er du informert om at det er viktig at du er i aktivitet og når du kan begynne å trene
- 32. Er du informert om at det er viktig at du er i aktivitet og nar du kan begynne a trene?
- I NEI, avklar med lege/sykepleier som skriver deg ut 33. Er du informert om aktivitetsrestriksjoner?
- □ JA
- ☐ NEI, avklar med lege/sykepleier som skriver deg ut
- 4. Er du informert om nar du kan dusje i
- D NEL collection and least fortunateless consistent and an ex-
- Medisiner
- 35. Skal du begynne med nye medisiner
- ☐ NEI, gå til <u>punkt 40</u>
- ☐ JA, bruk sjekklistepunktene under og be om en gjennomgang med legen som skriver deg ut 36. Er du informert om mulige bivirkninger til de nye medisinene?
- III JA
- 37. Er du informert om hvem du kan kontakte hvis du opplever bivirkninger:
- □ JA
- □ NEL avkl:
- 38. Er det medisiner eller mat du ikke kan spise sammer
- □ NEI
- ☐ JA, avklar med legen som skriver deg ut og skriv ned navnen





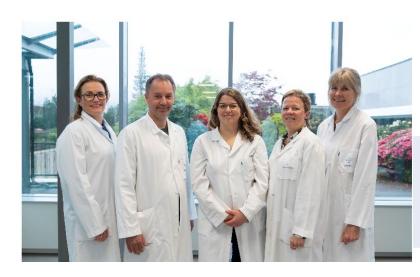
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