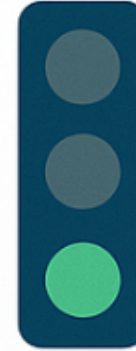


Praktisk gjennomføring



Rekruttering, samtykkeinformasjon og sikkerhetsrapportering

Forskerinitierte studier - Fra idé til publikasjon 25.11.25

Nikolai Kragøe Andresen

Seksjon for utprøvende kreftbehandling, OUS



Seksjon for utprøvende kreftbehandling

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 Journal for Immunotherapy of Cancer

Ipilimumab and nivolumab combined with anthracycline-based chemotherapy in metastatic hormone receptor-positive breast cancer: a randomized phase 2b trial

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► Additional supplemental material is published online only. To view, please visit the journal online (<http://dx.doi.org/10.1136/jitc-2023-007990>).

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 Check for updates

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The prognosis for patients with metastatic breast cancer (mTBC) is poor, with a median survival of 15–20 months. Immunotherapy (ICs) targeting PD-1/PD-L1 are effective in many cancer forms but have limited

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ABSTRACT

Background Immune checkpoint inhibitors have shown minimal clinical activity in hormone receptor-positive metastatic breast cancer (HR⁺mBC). Doxorubicin and low-dose cyclophosphamide are reported to induce immune responses and counter regulatory T cells (Tregs). Here, we report the efficacy and safety of combined programmed cell death protein-1/cytotoxic T-lymphocyte-associated protein 4 blockade concomitant with or after immunomodulatory chemotherapy for HR⁺mBC.

Methods Patients with HR⁺mBC starting first-/second-line chemotherapy (chemo) were randomized 2:3 to chemotherapy (pegylated liposomal doxorubicin 20 mg/m² every second week plus cyclophosphamide 50 mg by mouth/day in every other 2-week cycle) with or without concomitant ipilimumab (ip; 1 mg/kg every sixth week) and nivolumab (nivo; 240 mg every second week). Patients in the chemo-only arm were offered cross-over to ipi/nivo without chemotherapy. Co-primary endpoints were safety in all patients starting therapy and progression-free survival (PFS) in the per-protocol (PP) population, defined as all patients evaluated for response and receiving at least two treatment cycles. Secondary endpoints included objective response rate, clinical benefit rate, Treg changes during therapy and assessment of programmed death-ligand 1 (PD-L1), mutational burden and immune gene signatures as biomarkers.

Results Eighty-two patients were randomized and received immune-chemo (N=49) or chemo-only (N=33). 16 patients continued to the ipi/nivo-only cross-over arm. Median follow-up was 41.4 months. Serious adverse events occurred in 63% in the immune-chemo arm, 39% in the chemo-only arm and 31% in the cross-over arm. In the PP population (N=78) median PFS in the immune-chemo arm was 5.1 months, compared with 3.6 months in the chemo-only arm, with HR 0.94 (95% CI 0.59 to 1.51). Clinical benefit rates were 55% (26/47) and 48% (15/31) in the immune-chemo and chemo-only arms, respectively. In the cross-over arm (ipi/nivo-only), objective responses were observed in 19% of patients (3/16) and clinical

WHAT IS ALREADY KNOWN ON THIS TOPIC

→ Therapies blocking the programmed cell death protein-1 (PD-1)-axis are approved for metastatic programmed death-ligand 1-positive triple-negative breast cancer (TNBC), whereas there is little knowledge on the activity of these drugs against hormone receptor-positive (HR⁺) metastatic BC. Doxorubicin and cyclophosphamide reportedly have immunostimulatory properties, but clinical data on their potential synergy with immune checkpoint blockade are lacking.

WHAT THIS STUDY ADDS

→ This randomized open-label trial demonstrates that the concomitant addition of PD-1/cytotoxic T-lymphocyte-associated protein 4 (CTLA-4) blockade to doxorubicin and cyclophosphamide increases the risk of high-grade adverse events without improving clinical activity compared with chemotherapy alone in metastatic HR⁺ BC. However, a subgroup of patients obtained clinical benefit from ipilimumab and nivolumab administered after stopping chemotherapy.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

→ The findings provide a rationale for further trials exploring dual PD-1/CTLA-4 blockade in HR⁺ BC, but suggest that combination of these agents with chemotherapy should be sequential rather than concomitant.

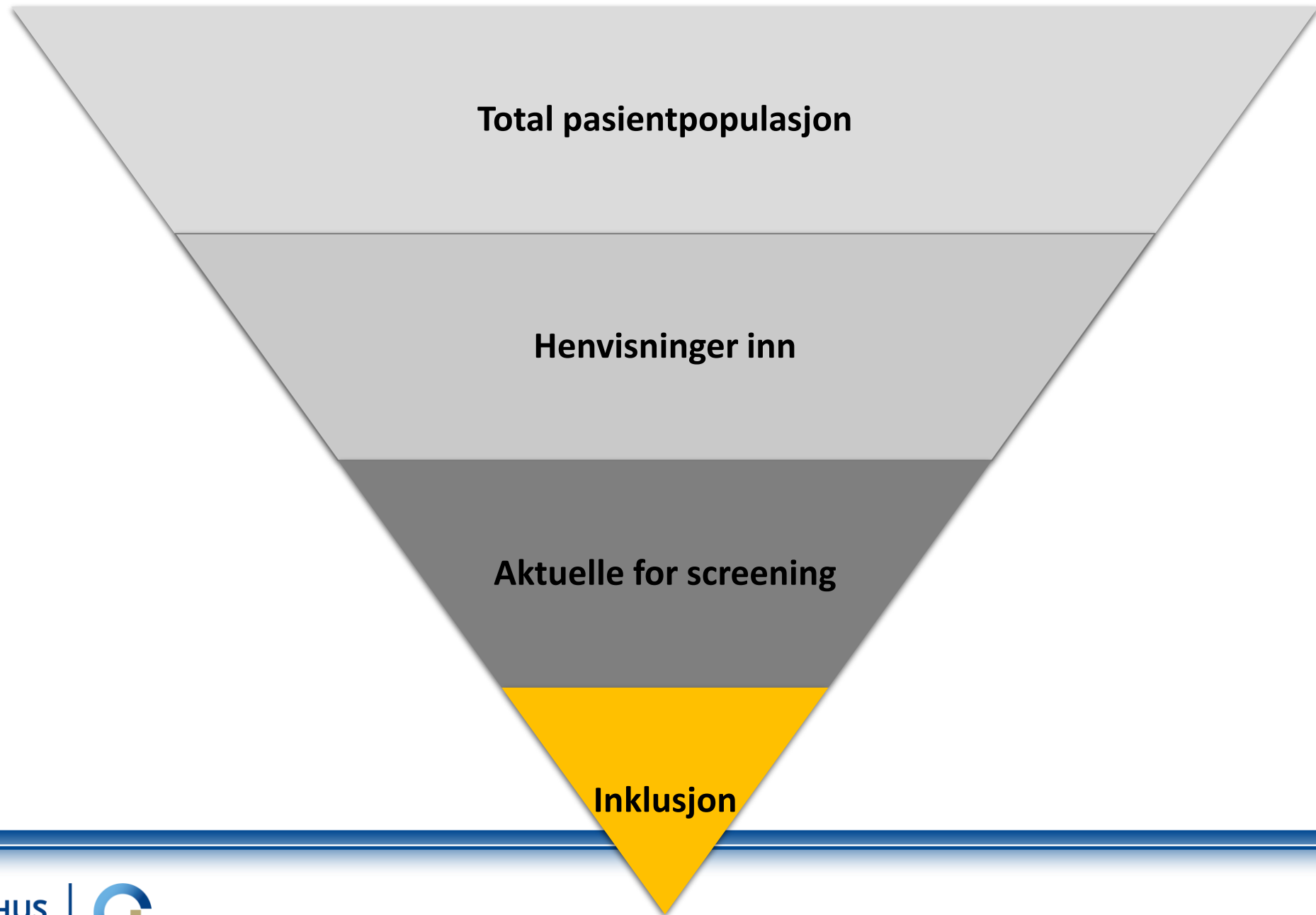
benefit in 25% (4/16). Treg levels in blood decreased after study chemotherapy. High-grade immune-related adverse events were associated with prolonged PFS. PD-L1 status and mutational burden were not associated with ipi/nivo benefit, whereas a numerical PFS advantage was observed for patients with a high Treg gene signature in tumor.

REKRUTTERING AV PASIENTER

Lasagna's Law:

The incidence of patient availability sharply decreases when a clinical trial begins and returns to its original level as soon as the trial is completed.

Louis Lasagna 1970

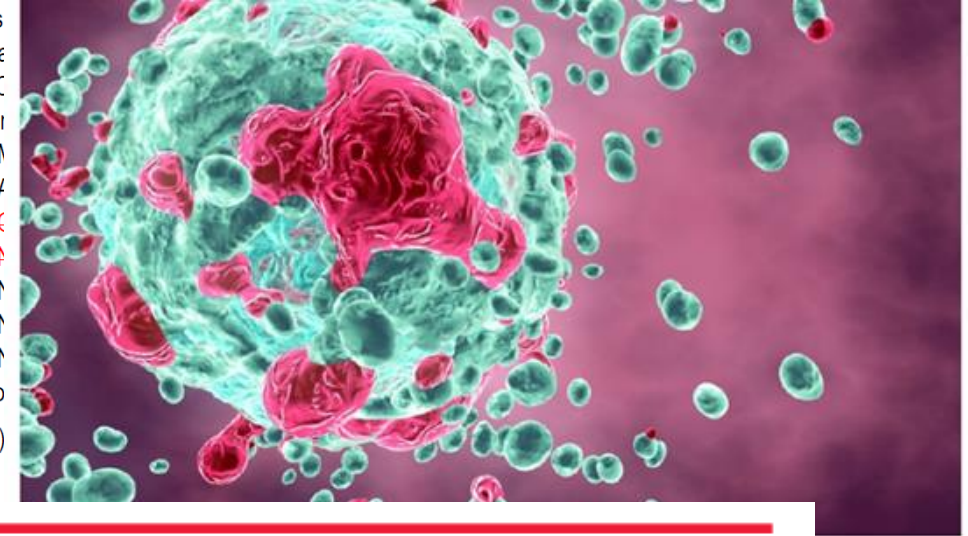


Sen rekruttering - analyse

- Nok kunnskap om studien?
- Interesse for studien?
 - Forankring i fagmiljø?
 - Konkurrerende studier?
- Snevre inklusjonskriterier?
- Praktiske flaskehalser?

The subject must be excluded from participating in the trial if the subject has/is:

1. Malignancies other than breast cancer within 5 years prior to randomization, with the exception of those with a negligible risk of metastasis or death and treated with expected curative outcome (such as adequately treated carcinoma in situ of the cervix or basal or squamous cell skin cancer)
2. Spinal cord compression not definitively treated with surgery and/or radiation, or previously diagnosed and treated s
3. Known C
criteria ar
a. M
b. /
c. C
d. M
e. C
f. d.
g. e.
4. Uncontro
PleurX[®])



Sen rekruttering – praktiske eksempler

- Forenkle inklusjons- eller eksklusjonskriterier?
- Omtale i media?
Pasientorganisasjoner?
- Åpne nye studiesites?
- Lukke studien tidlig?

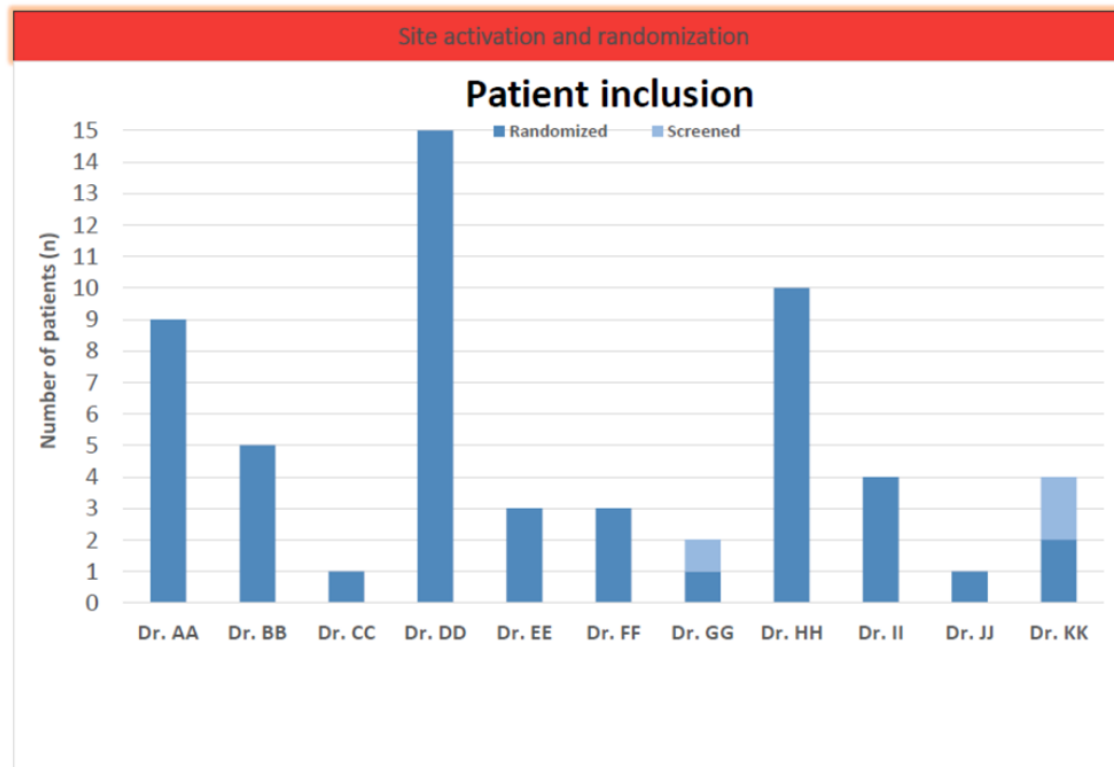
nature medicine

Article

<https://doi.org/10.1038/s41591-022-02126-1>

Atezolizumab plus anthracycline-based chemotherapy in metastatic triple-negative breast cancer: the randomized, double-blind phase 2b ALICE trial

Rekruttering – Nyhetsbrev?



Overview of randomized patients per site in the XX study.
11 out of 11 planned sites are now open for enrolment.

Mal for nyhetsbrev utlånt fra Ultimovacs

STUDY PATIENT INCLUSION

As of 10 November, **60 patients** have been randomized in the XX study

Enrollment updates

Congratulations on the **NEW** achievements!

Norway

Dr. AA and Team at Hospital AA have randomized their 9th patient

Dr. BB and Team at Hospital BB have randomized their 4th and 5th patient

Dr. CC and Team at Hospital CC have randomized their 1st patient

Sweden

Dr. DD and Team at Hospital DD have randomized their 15th patient

Dr. EE and Team Hospital EE have randomized their 3rd patient

France

Dr. FF and Team at Hospital FF have randomized their 3rd patient

Dr. GG and Team at Hospital GG have randomized their 1st patient and have 1 patient in screening

USA

Dr. HH and Team at Hospital HH have randomized their 9th and 10th patient

Dr. II and Team at Hospital II have randomized their 4th patient

Dr. JJ and Team at Hospital JJ have randomized their 1st patient

Dr. KK and Team at Hospital KK have 2 more patients in screening

STUDY Fast Blast

In October 8 patients were randomized. Keep up the good work that you are doing!

INFORMERT SAMTYKKE

Informert samtykke

Regulert via omfattende lovverk og retningslinjer:

- Helseforskningsloven & Forskrift om klinisk utprøving av legemidler til mennesker
- Helsinkideklarasjonen & retningslinje for god klinisk utprøvningspraksis (ICH GCP Guideline)

Bygger på 4 prinsipper:

- Adekvat informasjon – et språk som er forståelig for alle
- Kompetent person som mottar informasjonen
- Fravær av påvirkning av noe slag
- Mulighet til å trekke seg når som helst i prosessen

Den skriftlige pasientinformasjonen danner grunnlaget

Informert samtykke – praktiske råd

- Skriftlig pasientinformasjon på forhånd
- Sett av god tid, også betenkningstid
- Utprøver informerer muntlig med bakgrunn i den skriftlige pasientinformasjonen
 - *Formålet med utprøvingen*
 - *Nytte og risiko*
 - *Behandlingsalternativer*
 - *Vilkår for gjennomføring*
 - *Muligheten til å trekke seg*
- Dokumenteres i journal → vurder en mal

Samtykke for deltakelse i studien

Jeg har mottatt skriftlig og muntlig informasjon om studien, spørsmålene mine er besvart, og jeg er villig til å delta i studien. Dette inkluderer samtykke til at innsamlet materiale kan benyttes til laboratorieanalyser/forskning slik som beskrevet ovenfor (kapittel A og B).

Tilleggsstudie

Samtykke til at innsamlet materiale (blod, urin, vev, avføringsprøve) kan benyttes i fremtidig forskning utover hva som er planlagt i hovedstudien, som beskrevet ovenfor (kapittel A).

- ☐ Ja, jeg gir mitt samtykke til at en del av innsamlet prøvemateriale også kan bli benyttet til fremtidig kreftforskning
- ☐ Nei, jeg gir ikke samtykke til at en del av innsamlet prøvemateriale også kan bli benyttet til fremtidig kreftforskning

Deltakernavn

Signatur

Dato

Bekreftelse på at informasjon er gitt deltakeren i studien

Pasientnr.: _____

Jeg bekrefter å ha gitt informasjon om studien.

Navn på person som har informert om studien

Signatur

Rolle i studien

Dato

SIKKERHETSRAPPORTERING - LEGEMIDDELSTUDIER

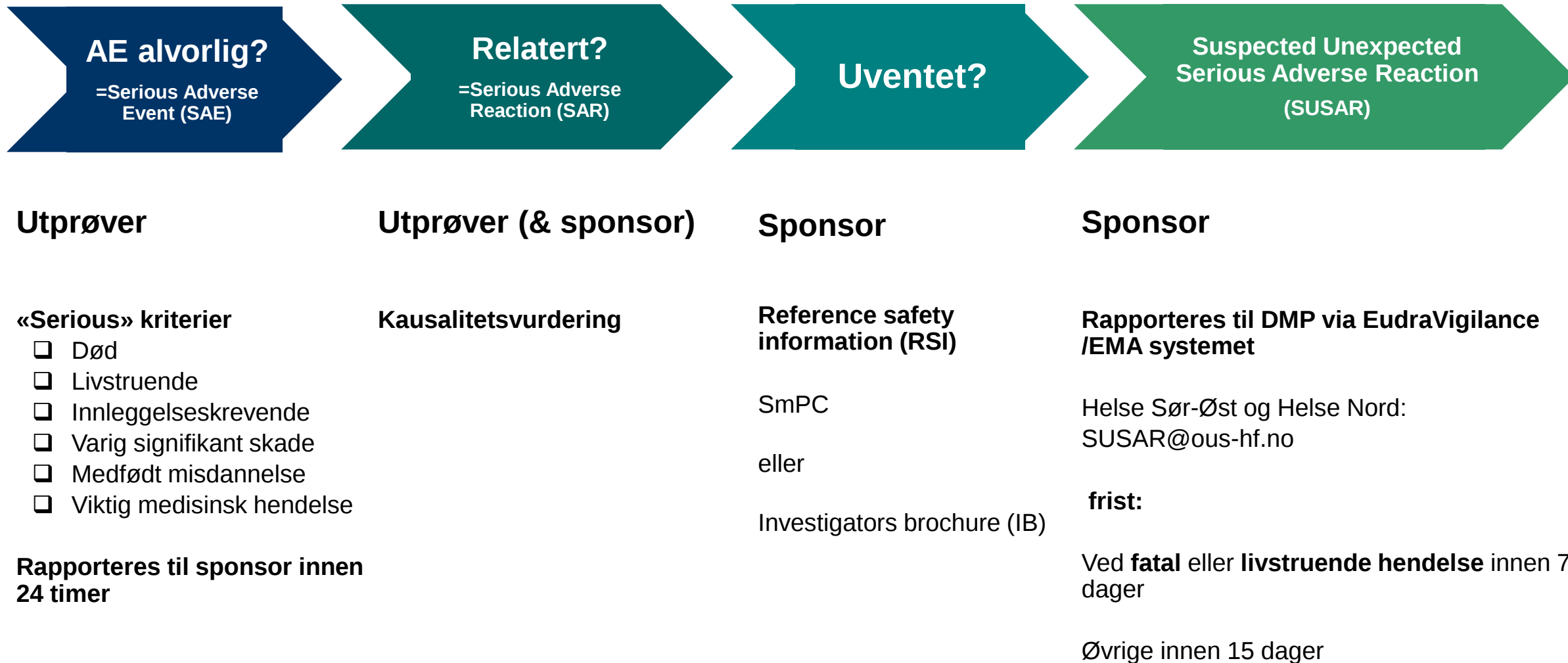
Adverse event (AE): Enhver uønsket medisinsk hendelse som inntreffer hos en forsøksperson som har fått et legemiddel, men som ikke nødvendigvis har en årsakssammenheng med den aktuelle behandlingen.

Adverse reaction (AR): En AR, i motsetning til en AE, kjennetegnes ved at det er mistanke om en årsakssammenheng mellom bruk av et legemiddel og en oppstått hendelse.

SIKKERHETSRAPPORTERING

- **Avklarte interne rutiner**
 - → *Sikre lovpålagte krav*
- **Entydig intern rollefordeling**
 - → *Medical monitor funksjonen*
- **System for kontinuerlig oversikt og rapportering**

Rapportering av alvorlige hendelser



Takk for meg!

Anbefalt lesing:

[Forside – NorCRIN](#)

[ICH TOPIC E2A](#)

[Detailed guidance on the collection, verification and presentation of adverse event/reaction reports arising from clinical trials on medicinal products for human use \(CT-3\) \(europa.eu\)](#)