HIMSS 26
EUROPE
19–21 May | Copenhagen

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EXPERT **INSIGHTS**
EXCEPTIONAL **IMPACT**

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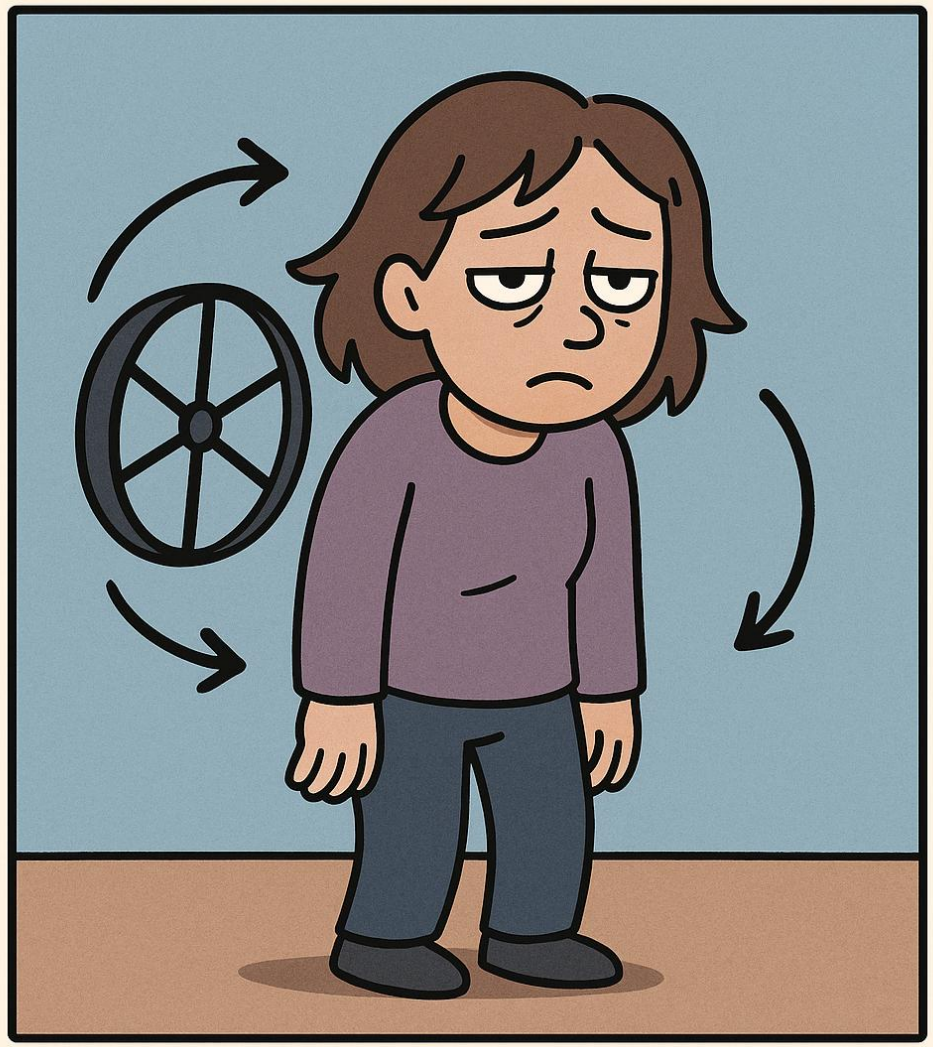
Power to the patients, at home: example of at-home blood tests for cancer patients

We've spent decades perfecting what happens inside hospital walls — but what about everything outside them?

Being a cancer patient is "hard work"

- Loss of energy and control
- Feeling worried and anxious
- Travel to and from hospital is time-consuming and exhausting
  - Many blood samples are needed as part of the treatment and care process = many trips to the hospital



+30 years: blood sampling visits unchanged

1

Travel to a physician for a health check

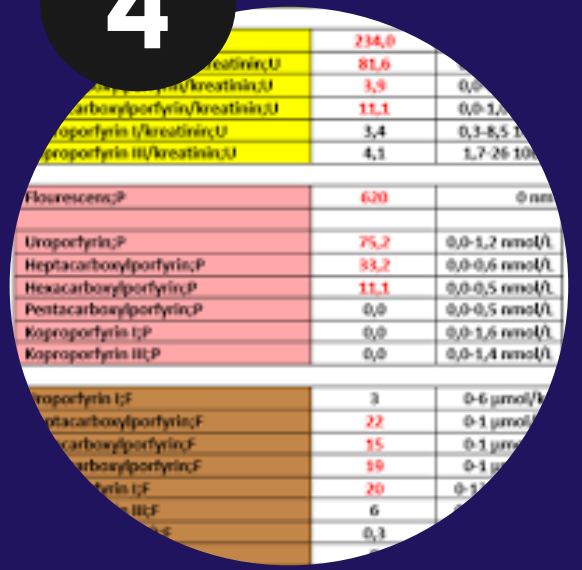
2

Office visits have **changed little in +30 years**

3

Draw a **substantial amount of blood**

4



Few clinical measurements done

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4

Patient involvement and home treatment

- The patients as co-treatment manager

Liberating the NHS:

No decision about me, without me

Contents lists available at ScienceDirect

Leukemia Research

journal homepage: www.elsevier.com/locate/leukres

Research paper

A national Danish proof of concept on feasibility and safety of home -based intensive chemotherapy in patients with acute myeloid leukemia

Kristina Holmegaard Nørskov [a,*], Katrine Fridthjof [b], Christen Lykkegaard Andersen [a], Toni Renaberg [a], Cla Katrine Schou [c], Cecilie Fremming Jensen [c], Peter Mø Claus Marcher [d], Lene Jepsen [d], Anne Katrine Ørntoft Anni Behrentzs [f], Connie Fruergaard Hasselgren [f], Ma Mary Jarden [a,h], Tom Møller [i], Lars Kjeldsen [a]

European Journal of Oncology Nursing 60 (2022) 102199

Contents lists available at ScienceDirect

European Journal of Oncology Nursing

journal homepage: www.elsevier.com/locate/ejon

Home is best. Self-administration of subcutaneous Bortezomib at home in patients with multiple myeloma - A mixed method study

Jannie Kirkegaard [a], Birgitte Wolf Lundholm [a], Tine Rosenberg [a,c,*], Thomas Lund [a,c], Michael Tveden Gundesen [a,c], Karin Brochstedt Dieperink [b,c,d]

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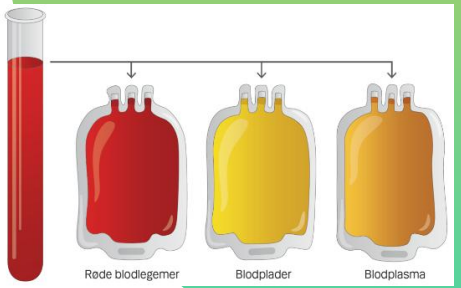
[b] Research Unit of Oncology, The Academy of Geriatric Cancer Research Odense University Hospital, Sdr. Boulevard 29, 5000, Odense C, Denmark
[c] Department of Clinical Research, University of Southern Denmark, J.B. Winslows Vej 19.3, DK-5000, Odense C, Denmark
[d] Family Focused Healthcare Research Center (FaCe), University of Southern Denmark, J.B. Winslows Vej 19.3, DK-5000, Odense C, Denmark



?

Monitoring of bonemarrow function as proof-of-concept

ORIGINAL ARTICLE

ISLH International Journal of Laboratory Hematology WILEY

The HemoScreen hematology point-of-care device is suitable for rapid evaluation of acute leukemia patients

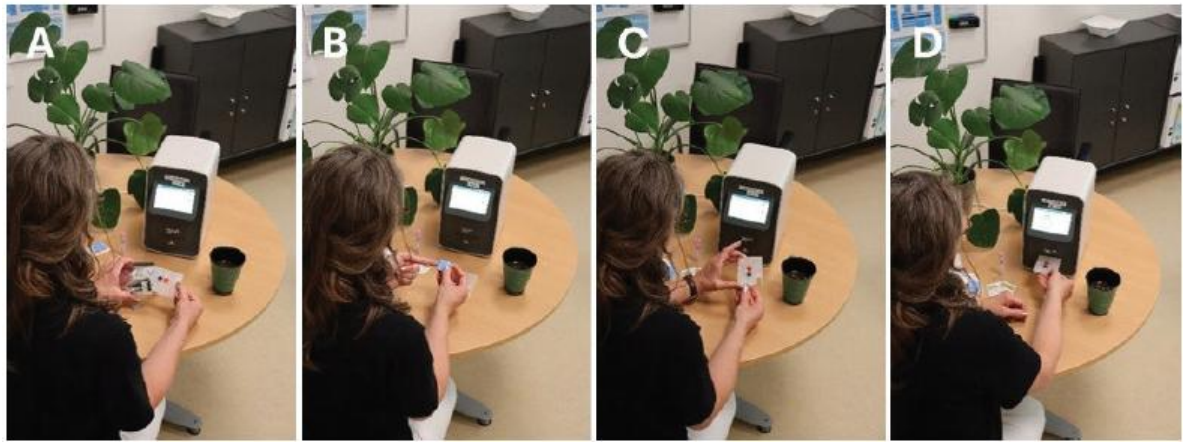
Dår Kristian Kur[1] | Danny Thøgersen[1] | Lars Kjeldsen[2] | Lennart Friis-Hansen[1,3,4]

ACTA ONCOLOGICA
2024, VOL. 63, 718–727
https://doi.org/10.2340/1651-226X.2024.41050
MJS PUBLISHING

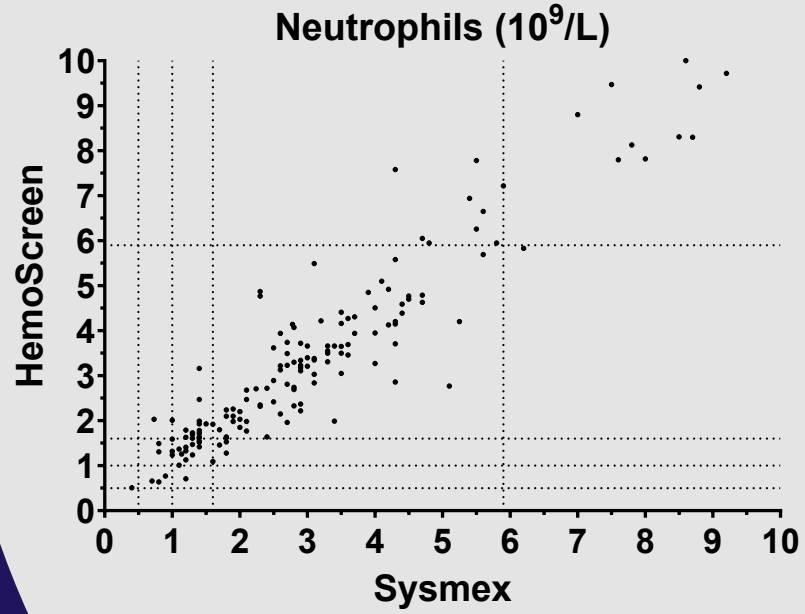
ORIGINAL ARTICLE

Home self-testing of complete blood counts in patients with breast cancer during chemotherapy: A proof-of-concept cohort study in e-oncology

Lennart Friis-Hansen[a,b,c], Pippi Jonassen Bjørck[a,d], Ditte Hartvig[a,d], Susanne Andresen[e], Berit Rasmussen[a], Christina Hansen[a], Anne Nistrup[d], Keld Hundewadt[a] and Niels Henrik Holländer[a]



Acceptable technical quality



HemoScreen						n = 157
> 5.9				9	8	
1.6 - 5.9		1	17	95	1	
1.0 - 1.5		2	16	3		
0.5 - 0.9	1	3	1			
< 0.5						
Neutrophils (10*9/L)	< 0.5	0.5 - 0.9	1.0 - 1.5	1.6 - 5.9	> 5.9	Sysmex

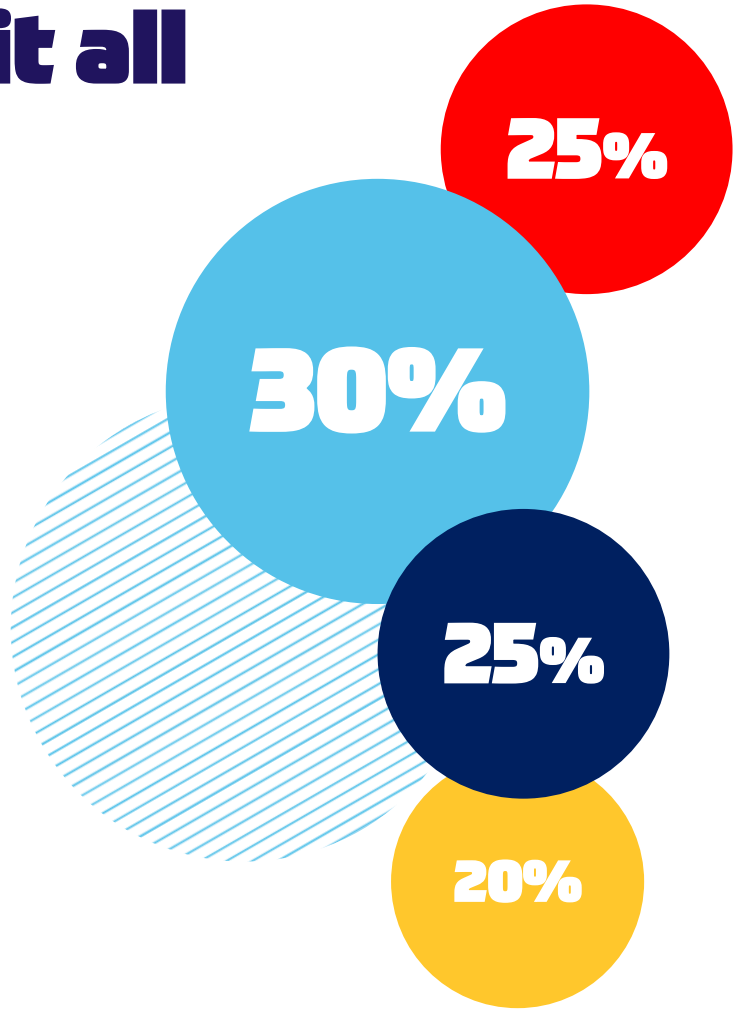
Positive lessons learned

- **Home testing empowered the patients – by:**
  - Being an active partner in the treatment
  - Regaining (some) control over their everyday lives
  - Not always having to rely on others to be told how they are doing
- **Home testing gives the patients flexibility:**
  - Easier to manage day-to-day life – especially for patients with children at home
- **The setup and instrument was easy to use**
  - Some patients even managed to use HemoScreen (outside the protocol) during episodes of febrile neutropenia

One Size does not fit all

9 out of 39 dropped out

Self-testing should be an equitable option for patients who are able to manage it. However, it should not replace standard treatment.



Medical reasons

Technical reasons

Emotional reasons (did not like the concept)

Other reasons

What are the challenges?

- **Instrument/technology**
  - Not made for patients but for healthcare professionals => Too complex, expensive, big and heavy
  - Lacks the proper test-panels for home-monitoring
- **Devices for sampling for capillary blood**
  - Could be more user-friendly
- **Regulatory issues**
  - Lack of instruments certified to be operated by patients
  - Restrictions on data transfer between Region – County - GP
- **Healthcare professionals**
  - Reluctance to change "habits"
  - Perception of loss of control
  - Difficulties in accepting the patient as a colleague

Conclusions

- Home-based blood testing is technically feasible and clinically valuable for cancer patients in active treatment.
- It empowers patients, reduces the burden of illness, and supports the shift toward community-based care.
- To harvest the full potential, we need:
  - Regulatory reform
  - Better-certified instruments
  - A cultural shift in how we think about the patient's role

Summary

- The patients are ready.
- The technology is partly ready.
- Healthcare systems and regulations need to catch up.

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Thank you

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Other challanges to healthcare

- **Tripple challenge**
  - Economy
  - Demongraphic pressure
  - Limited workforce

- Perception of low in increase productivity => Notion that the Healthcare service is **OVERFUNDED and OVERSTAFFED**

- **=> A future with “No more money, no more staff”**

The data transfer setup