Supplementary table 1: Patients' evaluation of the opportunity and danger of the use of digital technologies and AI in healthcare (n=1180). Ratings ranged from 0 (no opportunity/no danger) to 10 (high opportunity/high danger). Results are expressed as raw number – raw proportion (%) – proportion after statistical weighting (%)

	Small opportunity (rating <3) N=74	**Moderate opportunity (rating 3–7) N=543**	**Great opportunity (rating >7) N=563**
Small danger (rating <3) N=340			
Raw number	19	80	241
Raw %	2%	7%	20%
Weighted %	2%	7%	20%
Moderate danger (rating 3–7) N=677			
Raw number	15	406	256
Raw %	1%	34%	22%
Weighted %	1%	34%	23%
Great danger (rating >7) N=163			
Raw number	40	57	66
Raw %	3%	5%	6%
Weighted %	3%	4%	5%

Supplementary table 2: Patients' perceived benefits of the use of digital technologies and AI in healthcare. Categories presented were defined by thematic analysis of patients' open-ended answers

Technology may improve access to care by
Making some care procedures accessible to everybody
Facilitating access to care fin rural zones
Facilitating the monitoring and follow-up for persons with poor mobility
Facilitating the engagement in care of young people
Offering fun and de-dramatizing health information
Offering easy to use tools (apps, websites) to help patients in their care
Technology may facilitate caregivers' work by
Automatizing repetitive tasks
Providing tools to help doctors' work
Helping doctors to choose the right treatment for the right person
Helping care professionals monitor the treatment efficacy and its side effects
Enabling a more personalized care
Enabling a more global vision of patients
Technology may improve the follow-up of patients with chronic conditions by
Helping in diagnosing health problems
Providing reliable health data measurements
Providing accurate health data measurements
Enabling remote monitoring
Enabling continuous monitoring
Enabling telecare
Enabling a more anonymous care
Enabling "rich" data capture that will help in better understanding better patients' status
Reducing subjectivity in care
Enabling data analyses beyond human capabilities
Improving the reactivity of care
Enabling automatic (AI driven) adjustments of treatment
Warning, in real time, patients or their physicians about problems
Accelerating care procedures and the care pathway
Facilitating the comprehension of patients' care pathways
Technology may reduce the burden of care for patients by
Facilitating the obtention of appointments for patients
Improving patients knowledge of their own diseases
Providing immediately accessible data and information to reassure patients
Improving patients' autonomy
Improving patients' responsibility in their care
Lowering the burden of treatment (e.g. limiting the number of visits)
Facilitating care in foreign countries with tools available in multiple languages
Technology may improve communication in care by
Facilitating information sharing between clinicians
Facilitating information sharing between patients and clinicians
Facilitating information sharing between patients and their entourage

Facilitating information sharing between patients

Technology may offer economic and environmental friendly solutions in care by
Saving time for physicians
Saving time for patients
Using less paper

Technology may improve prevention of diseases (primary or secondary)
Helping patients respecting a healthy lifestyle
Facilitating the prediction and prevention of health events

Technology may improve the safety of care by
Lowering the risk of medical mistakes
Facilitating the secured and easily available storage of data
Facilitating the traceability of information

Technology may accelerate research
By facilitating the capture of rich data for research purposes

Supplementary table 3: Patients' perceived risks of the use of digital technologies and AI in healthcare. Categories presented were defined by thematic analysis of patients' open-ended answers

Technology may not be accessible to everybody
Lack of education will limit the access to this type of care
This type of care will not be available everywhere
Costs will limit access to this type of care for everyone
Technology will have a negative effect on patients' health behaviors
Risk of addiction to quantification for patients
False reassurance from digital tools may delay consultation with a professional
Increased risk of self medication for patients
Digital monitoring may generate anxiety or stress for patients
Technology may de-responsibilize patients
Technology will have a negative effect on patient-caregiver relationships
Digital technologies may discourage caregivers/researchers to look for other non captured information
Digital tools may threaten personalization of care
Artificial intelligence may de-responsibilize caregivers (Who will hold responsibility in case there is an error?)
Digital data may hinder the importance given to patients' words
Technology may have reliability issues
Risk of diagnostic errors
Reliability issues (bugs, equipment failure…)
May provide incorrect information to patients
Dematerialized information may pose problems of storage and availability
Technology may intrude in patients' lives
Alerts and monitoring may intrude in patients' private lives
Technology may hinder patients' freedom (need to have access to internet, etc.)
May threaten privacy of patients' information
Technology increases the risk of data misuses
Information gathered using digital tools may be misunderstood by patients or their caregivers
Necessitates an ethics reflexion before being used in care
Risk of spying on patients
Data collected may be used without patients' consent or sold
Replacing human in care is unwanted
May put some caregivers out of work
Loss of human contact in care
Loss of human control in care
Technology will not encompass all individual situations lived by patients
Technology is vulnerable to hacking
Wearable devices are at risk of hacking
Security risk for data gathered on patients (hacking…)

Technology will require a complete (complex and expensive) overhaul of the care system

Necessitates a complete overhaul of the current care organization

Digital tools are not environmentally friendly (need to be manufactured, energy based, etc.)

Supplementary table 4: Patients' characteristics in each cluster automatically identified from answers to the readiness vignettes (n=1176)
Patients were grouped by the similarity to their answers to the four vignettes using a k-means algorithm accounting for the weights of the calibrated dataset. Participants with missing data were dropped from analysis. Patients with missing data in at least one of their vignettes' evaluations were dropped from analysis.

Characteristic	Cluster 1 N=154 "Against any use of BMDs and AI care"	Cluster 2 N=75 "Against BMDs and AI for continuous remote monitoring"	Cluster 3 N=109 "Against automation of physical therapy"	Cluster 4 N=78 "Against automatic chatbots to answer calls"	Cluster 5 N=479 "BMDs and AI only with human control"	Cluster 6 N=269 "Accept the automation of some care processes"
Readiness score (min: 0; max: 6) – mean (SD)						
• AI to screen for skin cancer	1.1 (0.3)	2.2 (0.3)	2.6 (0.2)	2.9 (0.2)	2.9 (0.0)	3.5(0.2)
• Continuous remote monitoring to prevent flares	0.6 (0.2)	0.5 (0.1)	2.7 (0.2)	3.0 (0.3)	3.2 (0.1)	4.3 (0.2)
• Smart clothes to guide physical therapy	0.4 (0.2)	3.8 (0.2)	0.3 (0.1)	3.8 (0.3)	3.1 (0.0)	5.8 (0.1)
• Chatbots to assess symptom severity	0.5 (0.2)	4.0 (0.3)	3.7 (0.2)	0.2 (0.1)	3.9 (0.1)	5.0 (0.2)
Age (years) – mean (SD)	56.4 (3.1)	52.0 (5.0)	56.5 (2.6)	53.9 (3.0)	53.7 (1.4)	54.7 (1.6)
Female sex (%)	37	40	60	70	50	68
Higher education (%)	10	20	12	14	11	10
Number of chronic conditions – mean (SD)	2.4 (0.3)	2.1 (0.2)	3.0 (0.4)	3.7 (0.9)	2.7 (0.2)	2.6 (0.2)
Time since diagnosis (years) – Mean (SD)	19.5 (2.9)	15.1 (2.1)	21.2 (3.1)	19.0 (1.8)	18.5 (1.3)	20.9 (1.6)
Already use e-health or m-health tools (%)	5	69	50	57	47	37

Supplementary figure 1: Aggregated answers to the 4 vignettes evaluating patients' readiness to integrate specific BMD and AI-based interventions in their care – raw data (n=1176) Estimates were obtained using raw data (without calibration).