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RESEARCH ARTICLE





Experiences of hospital care for people with multiple long-term conditions: a scoping review of qualitative research

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Abstract

Background Multiple long-term conditions—the co-existence of two or more chronic health conditions in an individual—present an increasing challenge to populations and healthcare systems worldwide. This challenge is keenly felt in hospital settings where care is oriented around specialist provision for single conditions. The aim of this scoping review was to identify and summarise published qualitative research on the experiences of hospital care for people living with multiple long-term conditions, their informal caregivers and healthcare professionals.

Methods We undertook a scoping review, following established guidelines, of primary qualitative research on experiences of hospital care for people living with multiple long-term conditions published in peer-reviewed journals between Jan 2010 and June 2022. We conducted systematic electronic searches of MEDLINE, CINAHL, PsycInfo, Proquest Social Science Premium, Web of Science, Scopus and Embase, supplemented by citation tracking. Studies were selected for inclusion by two reviewers using an independent screening process. Data extraction included study populations, study design, findings and author conclusions. We took a narrative approach to reporting the findings.

Results Of 8002 titles and abstracts screened, 54 papers reporting findings from 41 studies conducted in 14 countries were identified as eligible for inclusion. The perspectives of people living with multiple long-term conditions (21 studies), informal caregivers (n = 13) and healthcare professionals (n = 27) were represented, with 15 studies reporting experiences of more than one group. Findings included poor service integration and lack of person-centred care, limited confidence of healthcare professionals to treat conditions outside of their specialty, and time pressures leading to hurried care transitions. Few studies explored inequities in experiences of hospital care.

Conclusions Qualitative research evidence on the experiences of hospital care for multiple long-term conditions illuminates a tension between the desire to provide and receive person-centred care and time pressures inherent within a target-driven system focussed on increasing specialisation, reduced inpatient provision and accelerated journeys through the care system. A move towards more integrated models of care may enable the needs of people living with multiple long-term conditions to be better met. Future research should address how social circumstances shape experiences of care.

Keywords Multiple long-term conditions, Multimorbidity, Qualitative research, Hospital care, Lived experience

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Background

Multiple long-term conditions (MLTC)—the co-existence of two or more long-term conditions in an individual—are becoming more common, with far-reaching consequences for populations and health services worldwide [1–3]. Although the definition and operationalisation of the concept of MLTC is highly variable [4] and a need for greater consistency has led to recent efforts to reach a consensus [5], the term MLTC is generally understood to be the experience of at least two long-term health conditions of long duration, including non-communicable diseases, infectious diseases and mental health conditions [2].

Inconsistencies in the definition and characterisation of MLTC have led to major variations in prevalence estimates [4, 6]; however, it is estimated that one in four of UK adults live with MLTC [7, 8] and that prevalence is increasing. The proportion of British adults aged over 65 years with MLTC is predicted to rise from 54% in 2015 to 68% by 2035 [9]. Multi-country studies suggest similarly high prevalence of MLTC in other high-income settings, with MLTC in low- and middle-income countries advancing towards equivalent levels [10, 11]. The accumulating evidence of the current and anticipated scale of MLTC, and their impact on quality of life and demand for healthcare, have led to calls to prioritise MLTC research [2].

People living with MLTC are more likely to experience lower quality of life, lower healthy life expectancy and poorer health outcomes than people with no or a single long-term condition [12, 13], and there is a growing awareness that clinical education, evidence-based guidelines and health services, typically oriented around single conditions, are fundamentally unsuited to the needs of this population [14–16]. This can be keenly observed in secondary and tertiary care, which, in recent years, have been characterised by greater specialisation [17]. While improving care and outcomes for single conditions, an increasing focus on specialised care may hinder the development of coordinated care able to address coexisting conditions in people with MLTC.

Recognising the need to better understand hospital care for MLTC, there is an important role for studies that can elucidate the lived experiences of receiving or delivering care. We therefore chose to focus in this review on qualitative research which, while encompassing a wide variety of methodological approaches and traditions, is characterised by the aim of producing a rich understanding of the ways in which people perceive and interpret social phenomena [18, 19]. Existing systematic and scoping reviews have captured aspects of the experience of MLTC care from the perspectives of general practitioners [20] informal caregivers [21] and patients [22], while others have focussed on specific aspects of care such as coordination and integration [23, 24]. However, no reviews known to the authors specifically explore and present the experiences of hospital care delivery and receipt from the perspectives of people living with MLTC, informal caregivers and healthcare professionals. To address this important gap, we undertook a scoping review to identify the breadth of relevant literature, describe the key concepts explored and highlight gaps in the knowledge base [25, 26].

In line with the core objectives of scoping reviews [27], we specifically aimed to address the following three research questions:

- (1) What is the nature, range and extent of published qualitative literature exploring hospital care experiences of people living with MLTC, informal caregivers and healthcare professionals?
- (2) What experiences of hospital care have been reported in the literature?
- (3) What gaps exist in the knowledge base that might be addressed by future research?

Methods

Our approach to the review was informed by Arksey and O'Malley's scoping review framework [25] and recently updated guidance on scoping review methodology [26]. In line with these frameworks and guidelines, a protocol was created which pre-specified the inclusion and exclusion criteria for the review (see Additional file 1) [4, 25, 28–34]. This scoping review was reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) [34].

Searching for relevant studies

Seven databases were searched systematically to identify eligible studies. The search strategies were formulated and executed by a medical librarian (LE) using the PICoS (Population-Phenomenon of Interest-Context- Study type) framework (see Table 1).

The search strategy involved combining both subject index and keyword terms covering the following concepts: MLTC, secondary care and qualitative research. Full details of the search strategies can be found in Additional file 2. The following databases were independently searched from 1st Jan 2010 to 22nd June 2022: Medline, Embase and PsycINFO (via OVID), Web of Science, Scopus, CINAHL via EBSCO, and Social Science Premium via Proquest. We opted to restrict the date to 2010 onwards as, given regular restructuring of hospital services and the increasing prevalence of MLTC, we wished to identify studies that reflected experiences most likely

P	Population	People with experience of multiple long-term conditions (MLTC; includ- ing both physical and mental health conditions) as patients, family mem- bers and friends who provide support, or staff delivering care
1	Phenomenon of Interest	Experience
Со	Context	Hospital care
S	Study type	Qualitative

 Table 1
 Population-Phenomenon of Interest-Context-Study (PICoS) framework

to be relevant to the current context of hospital care. Study titles and abstracts were uploaded to systematic review management software (Covidence) where they were deduplicated and screened against inclusion and exclusion criteria (see Table 2). Consistent with scoping review methodology [26], published studies were not excluded from the review on the basis of poor methodological quality.

Screening of titles and abstracts was carried out independently by six members of the review team (SB, LE, KBD, AR, JV, RC) with two reviewers screening each record. Any uncertainty or disagreement about inclusion was resolved through in-depth discussion between SB and RC. The reference lists of eligible studies and results from forward citation tracking were screened to identify additional articles.

Once eligible studies had been identified, a data extraction chart (see Additional file 3) was created following discussions among three authors (SB, RC, TS) and populated by one author (SB). Extracted data included author(s), year of publication, journal, definition of MLTC, theoretical framework, aims, methods, setting, health conditions, participants, findings, and author conclusions. In line with established methodological guidance from Arksey and O'Malley [25] and Peters et al. [26], we did not conduct formal critical appraisal of the included studies.

Collating, summarising and reporting results

Using the data extracted, studies were categorised according to country of origin, diagnosis-specific and non-diagnosis-specific research and perspectives of participants (people living with MLTC, informal caregivers and healthcare professionals). Consistent with recent guidance on scoping review methodology [26], the results are summarised narratively rather than analysed thematically.

Results

Overview of studies

We screened 8002 records from electronic database searches and a further 1613 records identified through citation tracking (see Fig. 1). A total of 54 papers [35–88] met the inclusion criteria for the review and these reported on findings from 41 unique studies (see Table 3 for a summary of these papers).

The studies were conducted in 14 countries, with the majority from the UK (9 studies, 14 papers) and Canada (6 studies, 8 papers). Four studies were conducted in lowand middle-income countries (Bangladesh, Iran, Pakistan and South Africa) with the remainder from high-income countries in Western Europe, Northern America or Australasia (Table 4). The key concepts underpinning studies were notably similar, despite the various contexts in which the studies were undertaken. Where there were clear differences between healthcare conditions, countries, or the perspectives of people with MLTC, informal caregivers or healthcare professionals, these are noted in the findings.

Around half of the studies (n = 21/41, 51.2%) were not diagnosis-specific, designating participants to be eligible on the basis of living with, informally supporting or delivering care for people with MLTC, or on the basis of diagnosis with at least two of a wide range of conditions. The

	Ta	ble	e 2	2	Inc	lusion	and	exc	lusion	criteria
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Inclusion criteria	Exclusion criteria
Primary qualitative studies (or mixed methods studies with a qualitative component) that report evidence relating to hospital care for people living with MLTC, informal caregivers, or care professionals	Quantitative research studies, intervention studies, study protocols, con- ference abstracts, or literature reviews
Studies published from 1st Jan 2010	Studies with a focus on everyday life or self-management of MLTC
English language	Studies where study participants are recruited on the basis of older age rather than MLTC
	Studies undertaken exclusively in primary care settings



other papers were diagnosis-specific, recruiting on the basis of two specified conditions (e.g. cancer and dementia; psychosis and diabetes) or a specified single condition with additional morbidities (e.g. HIV and multimorbidities; diabetes and multimorbidities), the latter grouping often being described as comorbidity. These study characteristics are summarised in Table 5. The age of participants living with MLTC, where a range was reported, was between 23 and 100 years. A total of 15 studies (36.6%) explicitly used age as an orienting concept in their studies, aiming to understanding the experiences of "elderly" or "older" patients.

When exploring the perspectives of a single participant group, the majority of studies focussed on healthcare professionals (n=17; 41.5%) compared with seven studies exploring solely the perspectives of people living with MLTC (17.1%) and two studying only the perspectives of informal caregivers (4.9%). Five studies explored views of both people living with MLTC and their caregivers (12.2%), while four (9.8%) focussed on people with MLTC and healthcare professionals, and one on informal caregivers and healthcare professionals (2.4%). Finally, five studies (12.2%) collected data on the perspectives of all three participant groups. Data collection was predominantly solely via interviews with a single person or dyad (n=26; 63.4%) with some studies using focus groups (n=7; 17.1%), or a combination of data collection methods, often including observation (n=6; 14.6%). Most studies had a cross-sectional design (n=33; 80.5%) with longitudinal designs including ethnographies (n=4; 9.8%) or repeated interviews (n=4; 9.8%). Sample sizes ranged from 5 to 116 for people living with MLTC, 2 to 33 for informal caregivers, and 5 to 65 for healthcare professionals. Professions represented included nurses (n=21 studies; 51.2%), medical staff (n=20; 48.8%), allied health professionals (n=6, 14.6%), social care staff (n=3; 7.3%), pharmacists (n=2; 4.9%), policy makers (n=1, 2.4%), or small numbers of other staff supporting people with MLTC in hospital settings such as chaplains or transport officers (n=9; 22.0%).

A wide range of qualitative approaches were employed in the studies. Although the majority used generic qualitative designs that did not appear to adhere to a particular methodology (n=25; 61.0%), other approaches included ethnography (n=4; 9.8%), grounded theory (n=4; 9.8%), and phenomenology / interpretative phenomenological analysis (n=3; 7.3%). A small number of studies (n=6; 14.6%) employed other methodological techniques including narrative approaches, case studies, and analysis of open-ended questions from in-person survey interviews. One study reported two designs. Studies largely did not state any underpinning theoretical

Table 3 Key featur	es of included	papers ordered alphat	oetically and chronold	ogically within studie	Se		
Lead author, year and reference number	Country	Aim	Study design and data collection	Setting	Participant group	Number of participants	Health condition

Lead author, year and reference number	Country	Aim	Study design and data collection	Setting	Participant group	Number of participants	Health condition	Age range (years) of people living with MLTC (where applicable)
Aebi, 2021 [35]	Switzerland	To investigate mental- somatic multimorbidity in hospital settings.	Generic qualitative Cross-sectional Interviews	Three general hospitals	HCPs	18	Not diagnosis specific	
2 papers based on one s	tudy							
Andersen, 2018 [36]	Denmark	Not explicitly stated, but to explore profes- sional collaboration regarding patient pathways from EMU for elderly people with multiple chronic illnesses	EthnographyTime period not stated Observation	Cross-sectoral: regional (secondary care emergency units), municipalities (com- munity care, public health), primary care	Patients; HCPs	10 patients; unclear how many HCPs were observed	Not diagnosis specific	68-89 (mean = 78.5)
Andersen, 2019 [37]		To explore intersec- toral collaboration and the creation of patient pathways for elderly people (65 +) with multiple chronic conditions, from emer- gency unit to home (or other care facility)						
Backman, 2018 [38]	Canada	To explore experi- ences of transitions across health care settings.	Participatory visual narrative Cross-sectional Photo walkabout interviews		Patients, informal caregivers	σ	Not diagnosis specific	56-94
Bartlett, 2012 [39]	Š	To understand: how healthcare profes- sionals assess the needs of an older person dying from cancer people with cancer and dementia have differing care needs from those who do not have dementia, how healthcare profes- sionals communicate with an older person dying from cancer with a coincidental dementia	Guided by Colaizzi's phenomenological method Cross-sectional Interviews	Acute hospital	HCPs and a chaplain	ſ	Cancer and dementia	

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Lead author, year and reference number	Country	Aim	Study design and data collection	Setting	Participant group	Number of participants	Health condition	Age range (years) of people living with MLTC (where applicable)
Ben-Menahem, 2021 [40]	Switzerland	To understand and develop a frame- work for care providers' perceptions of com- plexity	Phenomenology / IPA Cross-sectional Interviews	HIV outpatient care	HCPs	31	HIV and other morbidi- ties	
3 papers based on one	study							
Bosire, 2021 [41]	South Africa	To explore patients' experiences of accessing healthcare for comorbid HIV/AIDS and diabetes	EthnographyApr 2018– Jun 2019 ObservationInterviews	Public tertiary hospital	Patients	15	HIV and diabetes	40-70
Bosire, 2021 [42]		To explore how the health system functions to care for patients with comor- bid type 2 diabetes and HIV/AIDS at a tertiary hospital			HCPs	0E		
Bosire, 2021 [43]		To explore provider perspectives on person- centred care for people with HIV and comorbid diabetes			HCPs	OE		
Bunn, 2017 [44]	ň	To explore the impact of dementia on access to non-dementia services and identify ways of improving service delivery for this population	Generic qualitative Cross-sectional Interviews and focus groups	Primary and second- ary care	Patients, Informal caregivers, HCPs	117 (28 patients, 33 informal caregivers, 56 HCPs)	Dementia and other morbidities	59–94 (median = 82.5)
Carusone, 2017 [45]	Canada	To explore the obstacles and challenges faced by complex patients during hospital discharge and post-discharge transition	Case study Repeated interviews around 6 weeks	13-bed subacute hospital	Patients	0	HIV and other morbidi- ties	23–54
Cho, 2021 [46]	USA	To assess HCPS' expecta- tions of diabetes man- agement during cancer treatment and to identify possible communication barriers between primary and secondary care	Grounded theory Cross-sectional Interviews	Three hospitals	HCPs	10 oncologists	Cancer and type 2 diabetes	

	(1)							
Lead author, year and reference number	Country	Aim	Study design and data collection	Setting	Participant group	Number of participants	Health condition	Age range (years) of people living with MLTC (where applicable)
Cook, 2018 [47]	Australia	To examine how HCPs working in a cancer service undertake treat- ment decision-making and how this is affected by medical and social judgements	Generic qualitative Cross-sectional Interviews	Large cancer care service	HCPs	<i>б</i> і	Cancer and dementia	
Cullinan, 2015 [48]	Ireland	To identify hospital doctors' perceptions as to why potentially imappropriate prescribing (PIP) occurs, to identify barriers to addressing PIP and to determine which intervention types would improve prescribing	Generic qualitative Cross-sectional Interviews	Public and voluntary hospitals	HCPs	22	Not diagnosis specific	
Doos, 2015 [49]	ΠK	To identify issues regard- ing management of type 2 diabetes in patients with cancer	Grounded theory Cross-sectional Interviews	Two cardiology and respiratory wards	Patients, Informal caregivers	11 (6 patients, 5 caregivers)	Heart failure and Chronic Obstruc- tive Pulmonary Disease (COPD)	Patients: 62–91
Duthie, 2017 [50]	Canada	To explore cancer patients' experience with multimodal treat- ments, complex health- care needs and navi- gating the healthcare system	Generic qualitative Cross-sectional Interviews	Cancer centre in uni- versity hospital	Patients	10	Cancer and other morbidities	52-79
Ekdahl, 2012 [51]	Sweden	To explore physicians' perceptions and expe- riences of includ- ing elderly patients with multimorbidity in clinical decision- making	Grounded theory Cross-sectional Focus groups	Three hospitals in two counties	HCPs	30	Not diagnosis specific	
Fabricius, 2021 [52]	Denmark	To explore the deter- minants of patient involvement in deci- sions made in the ED about the patient's medication	Ethnography 5 months Interviews Observations	Two medical emer- gency departments in a university hospital	HCPs	48 (observation) 20 {interviews}	Not diagnosis specific	

Table 3 (continued)

Table 3 (continued	d)							
Lead author, year and reference number	Country	Aim	Study design and data collection	Setting	Participant group	Number of participants	Health condition	Age range (years) of people living with MLTC (where applicable)
Gallagher, 2015 [53]	Australia	To identify which older people emergency nurses perceive as using more nursing resources	Generic qualitative Cross-sectional Focus groups	Tertiary referral uni- versity hospital emer- gency department	HCPs	27	Not diagnosis specific	
Goebel, 2016 [54]	USA	To identify issues regard- ing management of type 2 diabetes in patients with cancer	Generic qualitative Cross-sectional Focus groups	Two outpatient cancer centres	Patients, HCPs	25 (5 patients, 20 HCPs)	Cancer and diabetes	Patients: mean = 59.4
5 papers based on one	study							
Griffiths, 2020 [55]	Ч	To explore cancer treat- ment decision-making in comorbid cancer and dementia	Ethnography Sep 2018 to May 2019 46 h of participant	Two English Trusts which provide local cancer services and more specialist	Patients; Healthcare professionals (HCPs); Informal caregivers	58 (17 patients, 22 rela- tives, 19 staff)	Cancer and dementia	45-88 (mean=75)
Sur, 2020 [56]		To explore the role of supportive networks in assisting and enabling people with comorbid cancer and dementia to receive hospital- based cancer treatment and care	observations 9 h of non-participant observations 37 interview Medical notes review Informal conversations	regional provision				
Ashley, 2021 [57]		To examine the hos- pital-based cancer care and treatment challenges and sup- port needs of people with dementia						
Griffiths, 2021 [58]		To understand how oncology services balance the needs of patients who have cancer and dementia						
Surr, 2021 [59]		To explore the challenges of navigating cancer treatment and care for people with comor- bid cancer and demen- tia, their family members and oncology staff						

Lead author, year and reference numberCountryAimStudy desiHansson, 2018 [60]SwedenTo describe the expe- riences of health- care professionalsGeneric quHansson, 2018 [60]SwedenTo describe the expe- riences of health- care professionalsGeneric quHultsjö, 2013 [61]SwedenTo describe the expe- riences of health- care providersGeneric quHultsjö, 2013 [61]SwedenTo describe the expe- riences of health- care providersGeneric quHultsjö, 2013 [61]SwedenTo explore mental healthcare staff's experiences of diabetesCross-secti cross-secti experiences of diabetesHuque, 2020 [62]BangladeshTo explore the experi- with comorbid depres- sion and tuberculosis of hospital care tions of unplannedGeneric quJayakody, 2021 [63]AustraliaTo explore the experi- tions of unplanned hospital readmissions from the perspectiveGeneric qu	ntinued)							
Hansson, 2018 [60]SwedenTo describe the expe- nences of health- care professionalsGeneric qu recus grou of the obstaclesand opportunities for col- laboration with patients and their relatives of careFocus grou cross-secti laboration with patients and their relatives of careFocus grou cross-secti cross-secti cross-secti deneric quHultsjö, 2013 [61]SwedenTo explore mental healthcare staff's experiences of diabetes with psychosisCross-secti cross-secti experiences of diabetes interviews sion and tuber culosis of hospital careJayakody, 2021 [63]AustraliaTo explore the experi- ences of people living with comorbid depres- linterviews sion and tuberculosis of hospital care tions of unplanned hospital readmissions from the perspective	ar and Country Aim ber		Study design and data collection	Setting	Participant group	Number of participants	Health condition	Age range (years) of people living with MLTC (where applicable)
Hultsjö, 2013 [61] Sweden To explore mental Generic qu Rutsjö, 2013 [61] Sweden To explore mental Generic qu Realthcare staff's Cross-secti Cross-secti Reared qu Realthcare staff's Cross-secti Ruque, 2020 [62] Bangladesh To explore the experi- Generic qu Huque, 2020 [62] Bangladesh To explore the experi- Generic qu Ruque, 2020 [62] Bangladesh To explore the experi- Generic qu Jayakody, 2021 [63] Australia To explore the experi- Generic qu Jayakody, 2021 [63] Australia To explore the experi- Generic qu Interviews sion and tuberculosis Interviews Forsis-secti	0) Sweden To des rience care p and or labora and th and th and th	scribe the expe- so of health- nofessionals obstacles pportunities for col- ption with patients neir relatives neir relatives e e	Generic qualitative Cross-sectional Focus groups	Hospital in Sweden and affiliated commu- nity and primary care facilities	HCPs	24	Not diagnosis specific	
Huque, 2020 [62] Bangladesh To explore the experi- ences of people living Cross-secti with comorbid depres- layakody, 2021 [63] Australia To explore the experi- cross and percep- tions of unplanned interviews hospital readmissions from the perspective	I Sweden To ext health experi care g with p	olore mental ncare staff's iences of diabetes jiven to people bsychosis	Generic qualitative Cross-sectional Interviews	Psychiatric outpatients	HCPs	12	Psychosis and diabetes	
Jayakody, 2021 [63] Australia To explore the experi- Generic qu ences and percep- Cross-secti tions of unplanned Interviews hospital readmissions from the perspective	Bangladesh To ext ences with c sion a	olore the experi- of people living comorbid depres- nd tuberculosis spital care	Generic qualitative Cross-sectional Interviews	119-bed chest hospital	Patients, Informal caregivers, HCPs	23 (12 patients, 4 infor- mal caregivers, 4 HCPs, 3 policymakers)	TB and depression	18-51+
of Aboriginal and Torres Strait Islander people with multiple chronic disease	 Australia To expension Australia To expension ences ences fromt fromt fromth r with r with r 	olore the experi- and percep- of unplanned tal readmissions the perspective original and Torres Islander people nultiple chronic	Generic qualitative Cross-sectional Interviews	Two tertiary hospitals	Patients	15	Multiple chronic dis- eases including CVD, chronic respiratory disease, diabetes, cancer, renal disease, cancer, renal disease, osteoporosis, mental health conditions	37–83 (median 68)

Table 3 (continu	led)							
Lead author, year and reference number	d Country	Aim	Study design and data collection	Setting	Participant group	Number of participants	Health condition	Age range (years) of people living with MLTC (where applicable)
3 papers based on on	ne study							
Kuluski, 2013 [64]	Canada	To investigate what is important in care deliv- ery from the perspective of hospital inpatients with complex chronic disease	Generic qualitative Cross-sectional Interviews Open-ended question data	Continuing care hospital	Patients	116 total (not all con- tributed to each aspect of the study)	Range of health condi- tions, most common were musculoskeletal conditions followed by stroke and multiple sclerosis	 <44 (n = 13; 12%) 45-64 (n = 52; 47%) 65 + (n = 46; 41%) < = 44 to 65 +
Ho, 2015 [65]		To better understand the discharge experience of people with multiple chronic diseases						
Kuluski, 2015 [66]		To explore factors that may serve as tipping points into poor health from the perspective of hospitalised patients with multimorbidity						
2 papers based on on	ne study							
Kumlin, 2020 [67]	Norway	To explore how elderly patients with complex health problems engage in and interact with their care trajectory across dif- ferent healthcare systems	Generic qualitative Cross-sectional Interviews	One rural hospital, one urban hospital, six municipalities	Patients HCPs	11 25	Not diagnosis specific	65-91
Kumlin, 2021 [68]		To uncover the work that HCPs undertake to achieve coherent and comprehensive care for elderly patients with multiple health problems						
Lekas, 2012 [69]	USA	To examine the reasons underlying the low rate of HCV treatment among HIV + patients	Generic qualitative Cross-sectional Interviews	Two urban hospitals	HCPs	17	HIV/ HCV (hepatitis C virus	
Lilleheie, 2020 [70]	Norway	To explore older patients' subjective experiences of quality of health services in and after hospital	Phenomenology/ IPA Repeated inter- views (n = 2) during and 30 days after hospitalisation	Acute geriatric ward	Patients	22 (18 retained in the study)	Not diagnosis specific	82–100 (mean = 92)

Lead author, year and reference number	l Country	Aim	Study design and data collection	Setting	Participant group	Number of participants	Health condition	Age range (years) of people living with MLTC (where applicable)
2 papers based on on	e study							
Lo, 2016 [71]	Australia	To explore the perspec- tives of patients and car- ers on factors influencing healthcare of people with comorbid diabetes and CKD	Generic qualitative Cross-sectional Interviews & focus groups	Four tertiary health services in two large Australian cities	Patients and informal caregivers HCPs	58 patients 8 informal caregivers 65	Diabetes and CKD	41–90 (majority aged 61–70)
го, 2016 [72]		To explore the per- spectives of general practitioners and tertiary health-care professionals concerning key factors influencing health-care of diabetes and CKD						
Malley, 2018 [73]	USA	To describe the preop- erative care transitions experience of older adults with multiple chronic conditions and their relatives and to examine preop- erative engagement and their reflections postoperatively	Generic qualitative Repeated interviews (2 in around 4 weeks)	975-bed medical centre	Patients, informal caregivers	16 (11 patients, 5 relatives	Not diagnosis specific	median = 81
Martin, 2022 [74]	ň	To explore the role of family caregivers in making cancer treat- ment decisions for older women with pre- existing dementia and breast cancer, particularly the deci- sion between surgery and non-surgical treat- ment	Generic qualitative Cross-sectional Interviews	13 breast cancer services	Informal caregivers	∞	Dementia and breast cancer	
Mason, 2016 [75]	ž	To report the experi- ences and perceptions of people with advanced multimorbidity to inform improvements in pallia- tive and end-of-life care	Generic qualitative Repeated interviews over 5–9 months	Acute admissions unit in Scotland, English general practice, respiratory outpatient clinic	Patients, informal caregivers	87 interviews (42 patient alone, 2 infor- mal caregivers alone, 43 patient-caregiver dyad)	Not diagnosis specific	55–92 average =76

Table 3 (continued)

Table 3 (continue	(p;								
Lead author, year and reference number	Country	Aim	Study design and data collection	Setting	Participant group	Number of participants	Health condition	Age range (years) of people living with MLTC (where applicable)	
2 papers based on one	e study								
McWilliams, 2018 [76]	Р	To explore cancer-related information needs and decision-making experiences of patients with cancer and comor- bid dementia, their caregivers and oncology HCPs	Generic qualitative Cross-sectional Interviews	Regional tertiary care cancer centre	Patients; HCPs; Informal caregivers Patients; Informal caregivers	31 (10 patients, 9 informal caregivers, 12 HCPs) 19 (10 patients, 9 informal caregivers)	Cancer and dementia	39-93	
McWilliams, 2020 [77]		To explore decision- making and treatment options for people who live with dementia and cancer							
Mikkelsen, 2020 [78]	Denmark	To describe psychiatric nurses' and diabetes nurses' experiences of care with hospitalised patients with schizophre- nia and diabetes	Phenomenology/ IPA Cross-sectional Interviews	Endocrinology ward and psychiatric ward	HCPs	œ	Schizophrenia and dia- betes		
Neiterman, 2015 [79]	Canada	To examine how patients (with multiple chronic health conditions) experience transitions to community from hos- pitals	Generic qualitative Cross-sectional Interviews		Patients Informal caregivers	36 (17 patients, 19 informal caregivers)	Range of conditions	70-89 (average 79)	
2 papers based on one	study د								
Nikbakht Nasrabadi, 2021 [80]	Iran	To explore nurses' experi- ences of transitional care in multiple chronic conditions	Generic qualitative Cross-sectional Interviews	University hospitals in two large cities	HCPs	15	Diabetes and other morbidities		
Nikbakht Nasrabadi, 2021 [81]		To explore family caregiv- ers' experiences of tran- sitional care in diabetes with concurrent chronic conditions			Informal caregivers	15			

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Lead author, year and reference number	Country	Aim	Study design and data collection	Setting	Participant group	Number of participants	Health condition	Age range (years) of people living with MLTC (where applicable)
Perrault-Sequeira, 2021 [82]	Canada	To identify and explore the networks of care providers in a sample of hospitalised complex patients and better understand the nature of their attachment to these providers	Grounded theory Cross-sectional Interviews		Patients	30	Not diagnosis specific	Mean age 69.5
Rivers, 2020 [83]	ž	To understand the mindset of doctors and pharmacists as they embark upon prescrib- ing in a multimorbidity and polypharmacy context during routine practice at a hospital acute admissions unit acute admissions unit acute admissions unit acute admissions unit and to evaluate to what extent attitudes relate to existing theory and models of prescrib- ing decisions	Phenomenologically oriented Cross-sectional Focus groups		HCPs	8	Not diagnosis specific	
Schiøtz, 2017 [84]	Denmark	To investigate quality of care for people with multimorbidity	Generic qualitative Cross-sectional Focus groups	University hospital	HCPs	18	Range of cardio- metabolic conditions, depression and COPD	
Schonfeld, 2012 [85]	USA	To explore physicians' experiences in conduct- ing end-of-life conversa- tions with elderly patients with comor- bidities	Generic qualitative Cross-sectional Focus groups		HCPs	32	Not diagnosis specific	
Verhoeff, 2018 [86]	The Netherlands	To investigate patients' experiences, beliefs and understandings of the current second- ary care of patients with multiple chronic	Generic qualitative Cross-sectional Interviews	Internal medicine and geriatric outpa- tients department	Patients	σ	Not diagnosis specific	67–92 (median 71.5)

Lead author, year and reference number	Country	Aim	Study design and data collection	Setting	Participant group	Number of participants	Health condition	Age range (years) of people living with MLTC (where applicable)
Witham, 2018 [87]	ň	To explore the experi- ence of carers who have supported a relative with cancer and demen- tia using a narrative approach	Narrative Cross-sectional Interviews	Regional cancer treat- ment centre	Informal caregivers	7	Cancer and dementia	
Younas, 2022 [88]	Pakistan	To determine nurses' perceived barriers to the delivery of person- centred care to complex patients with multiple chronic conditions in acute care settings	Generic qualitative Cross-sectional Interviews	Two hospitals	HCPs	19	Not diagnosis specific	

(continued)	
Table 3	

Table 4 Country of origin of included studies orderedalphabetically by number of studies and papers

Country	Number of studies	Number of papers	Reference numbers of papers
UK	9	14	[39, 44, 49, 55–59, 74–77, 83, 87]
Canada	6	8	[38, 45, 50, 64–66, 79, 82]
USA	5	5	[46, 54, 69, 73, 85]
Australia	4	5	[47, 53, 63, 71, 72]
Denmark	4	5	[36, 37, 52, 78, 84]
Sweden	3	3	[51, 60, 61]
Norway	2	3	[67, 68, 70]
Switzerland	2	2	[35, 40]
South Africa	1	3	[41–43]
Iran	1	2	[80, 81]
Bangladesh	1	1	[62]
Ireland	1	1	[48]
Pakistan	1	1	[88]
The Netherlands	1	1	[86]

framework; for those that did, the Theoretical Domains Framework (n=2; 4.8%), socio-ecological framework (n=2; 4.8%), and Health Outcomes Model (n=1; 2.4%) guided the work. Similarly, few studies made reference to an underpinning philosophical or social theoretical stance; those that did cited phenomenology (n=3, 7.3%), symbolic interactionism (n=2, 4.8%), interpretivism (n=2, 4.8%), pragmatism (n=1; 2.4%), or Bourdieusian theory (n=1; 2.4%).

Approaches to defining MLTC

Table 5 Health conditions studied

The diagnosis-specific studies described the particular conditions they were exploring. Among the studies that were not oriented around specific diagnoses or that stated a range of conditions (n=21), the most common definition of MLTC given was two or more chronic conditions in an individual (n=9, 42.9%). One study used the definition of one or more chronic illness [64], although recruited participants with multiple conditions. Eleven studies involving non-diagnosis-specific populations (52.4%) did not enumerate health conditions, referring instead to polypharmacy, patient complexity, or making broad reference to multiple chronic conditions. Four studies (9.8%) provided a list of conditions in their participant inclusion criteria.

A few research teams qualified their definition of MLTC, referring to the duration of the conditions [65], the need for medical management [65, 82], the lack of prioritisation of one condition over another [71], or the effect of MLTC on the person's capabilities to carry out activities of daily living [64, 65, 67]. Three teams of authors highlighted the importance of the social context in which MLTC can occur [40, 41, 88], with one noting that defining MLTC in terms of medical complexity may obscure the influence of socioeconomic and sociocultural influences on the experience of MLTC [41].

Coordinating service delivery

Experiences relating to service coordination and care delivery formed the main element of the findings of this review. Of all studies in the review, thirty-one (75.6%) reported findings relating to processes of interprofessional communication and service integration in specialist care settings. Interestingly, findings from all three participant groups identified similar issues, such as the siloed nature of specialties leading to fragmented care [42, 48, 49, 52, 64, 84, 86] and poor care continuity [37, 51, 58, 80], lack of clarity of responsibility [52, 54, 61,

Health conditions	Number of studies	Number of papers	Reference numbers of papers
Not diagnosis-specific, or a range of conditions stated	21	25	[35–38, 48, 51–53, 60, 63–68, 70, 73, 75, 79, 82–86, 88]
Cancer and dementia	6	11	[39, 47, 55–59, 74, 76, 77, 87]
Cancer and diabetes	2	2	[46, 54]
Human immunodeficiency virus (HIV) and other morbidities	2	2	[40, 45]
Psychosis and diabetes	2	2	[61, 78]
HIV and diabetes	1	3	[41–43]
Diabetes and chronic kidney disease	1	2	[71, 72]
Diabetes and other morbidities	1	2	[80, 81]
Cancer and other morbidities	1	1	[50]
Dementia and other morbidities	1	1	[44]
Heart failure and chronic obstructive pulmonary disease	1	1	[49]
HIV and hepatitis C virus	1	1	[69]
Tuberculosis and depression	1	1	[62]

71, 72, 86], insufficient interprofessional communication [35, 60, 66, 71, 78] and a perception that specialists were unwilling to offer medical advice beyond their area of expertise [44, 58, 78]. Limited functionality of electronic health record systems was noted by healthcare professionals to perpetuate these experiences, impacting on the reliability of medication history [37, 52, 83] and, in some instances, positioning people living with MLTC as the source of information for healthcare professionals [37, 46]. These challenges may be particularly acute between mental and physical healthcare services; studies including people living with dementia or psychosis reported a lack of service integration and lack of adaptation of physical health care delivery for people with mental health conditions [58, 61, 87]. Three studies, two conducted with patients and informal caregivers, and one with nurses, concluded that a named individual with responsibility for overseeing care for people living with MLTC would improve care coordination [49, 50, 78], although a barrier to creating and maintaining this role, noted by health care professionals, might be the structure of the funding arrangements and performance measurement for specialties [60]. Four studies (9.8%), three of which were conducted with healthcare professionals, and one with patients, and two of which were in low- and middleincome countries, highlighted under-resourcing in hospital care as a barrier to care coordination [42, 53, 64, 88].

Knowledge

Eight studies (19.5%) highlighted lack of knowledge and experience of treating other conditions as a contributing factor to the lack of joined-up care in hospital settings. Guidelines for clinical practice were perceived by healthcare professionals to be limited [44, 55, 83], with the research evidence base lacking for older people or people with MLTC as a result of exclusion of these groups from clinical trials [44, 48]. This led one study team to suggest that health care professionals treating people with MLTC do not "have a clear script to follow" [68] (p. 573) and, for another, that treatment recommendations may be more subjective rather than evidence-based due to the paucity of research evidence on MLTC populations [44]. Studies including people with dementia noted the lack of training, confidence, and experience of healthcare professionals to provide care for someone with cognitive impairment [44, 57].

Time and pacing

Insufficient time in the hospital setting to provide care for people with MLTC was a focal point of 16 studies (39.0%), with people living with particular conditions including HIV and dementia perceived by healthcare professionals as needing longer and more frequent appointments [58, 69, 77].

Time and pacing seemed particularly salient in emergency departments and at the point of discharge. The emphasis on rapid and efficient pathways through emergency care, either to admission or discharge, was not perceived to be congruent with the need for more time to understand the needs of people with MLTC in studies involving healthcare professionals and people living with MLTC [37, 53, 67, 70]. Observational data collected during an ethnographic study suggested this may lead to an over-simplification of chronic conditions and a lack of understanding of the cause of symptoms [36]. There were findings in two studies including healthcare professional participants that older people may be perceived by staff as resource-intensive and time-consuming in the emergency department [51, 53]. Prescribing in emergency care settings was perceived by doctors and pharmacists in two studies to be hurried, creating a focus on prescribing for acute presentations which could lead to long-term conditions being overlooked [48, 83].

Discharge was another point on the care pathway that was perceived as being problematic in terms of time. Discharge was described as being premature or rushed [45, 49, 63, 79], which could leave people living with MLTC and their caregivers feeling ill-prepared to navigate life with multiple long-term conditions after an in-patient stay [38, 45, 49, 65]. Eleven studies (26.8%), conducted in high-income countries, identified the recent trends in health policy towards shortened hospital stays, efficient discharges, and a prioritisation of highly specialised and measurable care for distinct conditions as disadvantageous for the MLTC population.

Person-centred care

Seventeen studies (41.5%) presented findings on personcentred care for people with MLTC in specialist settings. Despite being a common concept underpinning the body of literature, few authors offered a definition of personcentred care. Exceptions included a study in the US with healthcare professionals caring for people with HIV and HCV [69], which cited Mead and Bower's (2000) conceptualisation, a study in Pakistan of nurses caring for people living with MLTC which adopted Morgan and Yoder's (2012) biopsychosocial-spiritual definition [88], and a study conducted in Canada which cited Stewart's (1995) model [64].

Knowing the person living with MLTC was identified by healthcare professionals as a crucial component of care in several studies [39, 58, 68, 83]. However, in an example of divergence between professional and patient or family perspectives, studies reported that people living with MLTC and informal caregivers perceived a lack of individualised care [41, 50, 51, 64, 77, 81, 84, 88]. Studies involving only people with MLTC reported findings of poor communication with clinicians [63, 64, 70, 86], with staff perceived to prefer to focus on tangible symptoms [70] rather than on the whole person.

Twelve studies (29.3%), seven of which included people living with dementia, presented data relating to decisionmaking processes in hospital care for people with MLTC. Studies from the perspective of people living with MLTC highlighted the need for greater involvement in decision-making and the opportunity to share the important aspects of their conditions with healthcare professionals [50, 66, 70]. Building a trusting collaborative relationship between people with MLTC, informal caregivers, and staff was perceived to require time and consistency in two studies reporting the perspectives of staff and informal caregivers [69, 74].

Mental capacity and decision-making

Studies including people with dementia highlighted the challenges that the condition presented for shared decision-making [57, 76], particularly relating to cancer treatment, where concerns were raised over the person with cancer and dementia being unable to fully participate in treatment decision-making, communicate information about treatment side-effects, or recall their surgery. Decision-making led to an increased reliance on family members in studies exploring the perspectives of informal caregivers and healthcare professionals [39, 87] which could cause additional stress [56]. Some studies reported that family members could feel excluded from engaging in decision-making processes [44, 47, 87].

Support from informal caregivers

Thirteen studies (31.7%) highlighted support from informal caregivers as a key element in the experience of MLTC hospital care, with some studies finding that family members assumed the roles of advocacy and care coordination [56, 62, 73]. In studies including the patient perspective, the absence of an involved family member could reduce access to support [44, 66, 82]. Two studies offering insights into caregiver perspectives suggested that healthcare professionals needed to understand the level of caregiver involvement, assess their ability to provide support to their relative and understand the impact of ageing on caregivers' abilities to continue to provide support [56, 75]. Some studies illuminated tensions in the provider-informal caregiver relationship; one study of healthcare professionals in Sweden, for example, noted that family members could create ethical dilemmas by asking the clinician not to report illness details to patients [51].

Broader social context

A small number of studies explored the broader social context of health conditions, highlighting conditions such as HIV and TB which may be normalised in hospital environments but stigmatised in the community [45, 62, 69]. Deep-rooted gender issues were described in the two studies conducted in South Asia, with women's reliance on men to transport them to appointments [88], and poorer treatment of women with TB and depression [62] influencing access to and experience of hospital care. Socioeconomic status, poor housing, and lack of transport were seen as compounding the challenges associated with accessing services [41, 45, 62, 63], and while gender was consistently reported in these four studies, with evenly balanced samples, other characteristics were less routinely described. All the participants in one study [45] were receiving financial support or government disability services, and, in another [41], were described as low or middle income. Occupation was reported in two studies, with approximately half of the participants not in paid employment [41, 62], and housing status in one [45]. Ethnicity was less well-reported, with the exception of a study on Aboriginal and Torres Strait Islander peoples [63] which identified a need for culturally appropriate MLTC care.

Sociocultural understandings of health conditions may be reflected in clinical perspectives of dementia [44], with some perceptions of negative attitudes or stereotyping behaviour among staff caring for older people [51] or people with mental health conditions [35].

Discussion

We undertook a scoping review of published qualitative studies on experiences of care for people living with MLTC in hospital care settings to identify the breadth and nature of qualitative literature, the key concepts underpinning the knowledge base, and to highlight gaps for future research. A key finding of our review, which identified 54 papers, underlines the complexity of specialist care provision for people with MLTC, and illuminates the tension between a desire to provide person-centred care that attends to the needs of people with MLTC and a target-driven system of specialist care subject to increasing pressures to accelerate care pathways [89, 90].

Challenges to coordinating care across specialties were the most consistent finding in the review. With the exception of dementia and psychosis, which appeared to present additional challenges to integrating care, we observed little variation in findings across countries or health conditions, although this may require further interrogation in studies where MLTC, and the conditions included, are more clearly defined. Complementing existing evidence which suggests that care coordination is challenging in primary care for people with MLTC [91, 92], this review indicates that the current specialist care provision in hospital settings is also poorly suited to the needs of people living with two or more long-term conditions, and that greater effort needs to be made to integrate services and to deliver care that is responsive to the needs of people with MLTC [16].

Person-centred care formed a key concept within the reviewed studies. However, in common with other health research adopting this concept [93], few authors offered a definition of person-centred care, and there was some variability in those put forward. In general, individualising care, being listened to by healthcare professionals, and being involved in decision-making processes was perceived as important by people living with MLTC and informal caregivers.

Similar to Ho et al.'s systematic review of quantitative studies of multimorbidity [4], we found that MLTC was typically defined as the co-existence of two or more longterm conditions in an individual, and was rarely afforded further clarification. It should be noted that some of these papers were more closely aligned with definitions of comorbidity [94]; however, in wishing to take an inclusive approach, these papers were included. Definitions founded on the number of body systems affected by morbidities (such as complex multimorbidity, defined by Harrison et al. [95] as three or more conditions affecting three or more body systems) were not in evidence in this literature. Moreover, around a quarter of studies in our review did not provide any definition of MLTC. In a field as complex and rapidly expanding as MLTC research, we concur with Ho et al. [4], that, while study populations may appropriately vary according to the research question, achieving greater consistency and transparency in the definition of MLTC will enhance coherence and comparability.

Social and health inequalities were not a core element of this body of literature, yet MLTC are known to be associated with socioeconomic deprivation, with earlier onset of MLTC among people living in socially deprived areas [7, 96] and evidence that minority communities are disproportionately affected by MLTC [97, 98]. While qualitative approaches cannot provide prevalence estimates, they nevertheless present an opportunity to gain insights into the ways in which people's life circumstances might impinge on capacity to prioritise health and to access and engage with healthcare [99].

Of the five previous systematic or scoping reviews we identified on MLTC care [20–24], none had focussed on the hospital setting. However, all highlighted similar findings to our own, namely poorly coordinated healthcare and challenges delivering person-centred or holistic care. Lack of guidelines for MLTC care was also highlighted in

two reviews [20, 23] yet the important role informal caregivers may play was only emphasised in one [21]. Three of the reviews highlighted communication between primary and secondary care as a barrier to care coordination [20, 21, 23], with one in particular noting the potential antagonism between the holistic ethos of general practice and the specialist focus on individual body systems [20]. Time and pacing, a key finding from our review and perhaps more salient in the hospital setting, was not prominent in these other reviews, though limited time for GP consultations was noted as a potential barrier to optimal care [20].

Gaps in the knowledge base

The studies identified in this review have employed a range of qualitative approaches to provide insights into the experiences of hospital care for people living with MLTC from the perspectives of people receiving care, informal caregivers and healthcare providers. We can identify at least six clear gaps in the evidence base. Firstly, most studies were cross-sectional, capturing snapshots of experiences of hospital care rather than the experience of receiving or delivering hospital care over time. Studies that had a longitudinal design were either ethnographies [37, 41, 52, 55] or collected data through repeated interviews. Of the latter, most data collection was conducted over a period of a few weeks [45, 70, 73], with one exception where patients were followed up for between 5 and 9 months [75]. Consequently the studies were limited in the extent to which they could generate understandings of interactions with hospital care systems over time and how these might be shaped by biographical influences.

Secondly, the studies tended to focus on older populations, with only a small number of studies recruiting people living with MLTC below the age of 40 [45, 62–64, 76]. While ageing is associated with higher risk of MLTC, a study in Scotland found that more than half of people with MLTC were younger than 65 years of age, and that this was socially patterned, with socioeconomic deprivation associated with younger age at onset of MLTC [7, 96]. Further evidence suggests that MLTC are associated with ethnicity [100, 101] and gender [102] yet with the notable exception of the Richmond Group of Charities Taskforce study on MLTC and health equity [99], how sociodemographic characteristics may intersect to structure the experience of MLTC remains under-researched, and is not explored in the reviewed studies. Insights into this could be gained through life course approaches which can investigate ageing with MLTC and engaging with hospital care over time.

Thirdly, although the review identified several studies on dementia co-existing with other conditions, there was little focus on other types of mental health condition such as severe mental illness or common mental health disorders, despite the fact that associations between, for example, severe mental illness and diabetes [103], and depression and comorbid long-term physical health conditions are well-established [104].

Fourthly, the importance of informal support for people with MLTC receiving hospital care was highlighted in around a third of studies, with informal caregivers assisting with care coordination, managing multiple appointments and medications, and having a role in decision-making, particularly when the person receiving care was living with dementia. However, studies focussed on the experiences of a single person providing support, which rests on the assumption that only one person undertakes a caregiving role, and neglects broader supportive networks that some people with MLTC may have. Only a few studies [44, 66] articulated experiences of people with MLTC who did not have informal support. The limited evidence available suggests that lack of such support could affect access to services, which warrants further investigation.

Fifthly, with the exception of a study on cancer and dementia [32] which found that the hospital environment was not suited for people living with dementia, studies did not offer findings on the environment of the hospital as a physical institution in which care delivery took place. Experiences of navigating the hospital landscape with MLTC, which are associated with functional impairment [105] remain underexplored. In the context of greater centralisation of hospital services [106], and overcrowding in emergency departments leading to care being undertaken in corridors [107], there is an opportunity for future studies to illuminate the experience of the physical environment in which care takes place.

Finally, power dynamics of clinician-patient interactions in clinical spaces were only explored in depth in one study [47], and, while findings from the body of literature could be related to care quality, only two studies explicitly focussed on the concept of quality of care for MLTC [70, 84].

Potential future directions Table 6.

Strengths and limitations

Our review was novel in aiming to identify and describe the findings from qualitative research on the experiences of hospital care for people with MLTC. We followed established methods for scoping reviews [25, 26], including a systematic electronic search strategy supplemented with citation tracking and, as a result, were able to identify and summarise studies from 14 countries.

We recognise three main limitations of our review. First, we chose to focus on peer-reviewed literature published after 2010 to identify research reflecting experiences most likely to be relevant to the current context of hospital care, and we did not conduct searches of grey literature to ensure that the task of reviewing titles and abstracts was manageable in scale. However, we recognise that some relevant research, published earlier, or not published in peer-reviewed journals, may therefore have been missed. Additionally, although we used systematic searching methods and citation tracking, we did not contact authors or hand-search journals. Second, complexities around the definition and operationalisation of MLTC, and the frequent conflation of MLTC with age, meant that we were presented with a decision on whether to include a small number of studies that purported to study MLTC but recruited participants solely on the inclusion criterion of older age. We opted to exclude these studies as we could not be certain that the participants had MLTC and were reluctant to perpetuate notions of MLTC as an inevitable aspect of older age. Additionally, if we had wished to capture all studies of this nature, we would have had to expand our search terms to include all studies of older adults regardless of reported MLTC status. Third, in wishing to illuminate indepth experiences, we focused our review on qualitative studies. We acknowledge that further valuable insights could be gained from quantitative surveys of the views

Table 6 Overview of evidence gaps and potential future directions for qualitative research on MLTC hospital care

Gap in the current evidence base	Potential approach to addressing this gap in future qualitative research
How intersecting inequalities may shape MLTC experiences and interac- tions with hospital care in the context of lived lives	Life course /biographical narrative
Experiences of younger people living with MLTC	Sampling younger people with MLTC
Experiences of people living with mental health conditions	Sampling people with severe mental illness and common mental disorders
Diversity in access to informal care	Sampling people with no informal support or > 1 informal caregiver and comparing and contrasting their experiences
Navigation of hospital built environments	Human geography
Dynamics of clinician-patient interactions	Medical sociology Discourse analysis
Quality of care	Explicit focus on concept of care quality

and experiences of people living with MLTC, informal caregivers and healthcare professionals.

Conclusions

The accumulating evidence of the current and anticipated scale of MLTC, and its impact on quality of life and demand for healthcare, have led to calls to prioritise MLTC research. This review of qualitative studies has illuminated tensions between a drive to provide individualised person-centred care for people with MLTC in hospital settings, and a system which is moving towards greater clinical specialism and accelerated care pathways. More integrated models of care may enable the needs of people living with multiple long-term conditions to be better met in the hospital setting.

Abbreviation

MLTC Multiple long-term conditions

Supplementary Information

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Additional file 1. Study protocol.

Additional file 2. Electronic database search strategies.

Additional file 3. Data extraction template.

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Authors' contributions

This review was conducted as part of a programme of research (ADMISSION) conceived by AAS, RC, TS, MDW and SR. SB, TS and RC conceived the idea for this review and developed its objectives. SB, TS, LE and RC devised the search strategy. LE conducted the searches and citation tracking and retrieved the articles. SB, LE, KBD, AR, JV and RC screened titles and abstracts. SB and RC screened full-text articles and SB extracted data from included studies. SB wrote the first draft of the manuscript with input from LE, which was revised by TS and RC. All authors critically revised subsequent iterations of the manuscript and approved the final version.

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Availability of data and materials

No data were generated for this study. The study protocol, search strategies and data extraction template are available as Additional files.

Declarations

Ethics approval and consent to participate

Not applicable.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

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References

- Chowdhury SR, Chandra Das D, Sunna TC, Beyene J, Hossain A. Global and regional prevalence of multimorbidity in the adult population in community settings: a systematic review and meta-analysis. EClinical-Medicine. 2023;57:101860.
- Academy of Medical Sciences. Multimorbidity: a priority for global health research. London: Academy of Medical Sciences; 2018.
- Pearson-Stuttard J, Ezzati M, Gregg EW. Multimorbidity-a defining challenge for health systems. Lancet Public Health. 2019;4(12):e599–600.
- Ho IS, Azcoaga-Lorenzo A, Akbari A, Black C, Davies J, Hodgins P, et al. Examining variation in the measurement of multimorbidity in research: a systematic review of 566 studies. Lancet Public Health. 2021;6(8):e587–97.
- Ho ISS, Azcoaga-Lorenzo A, Akbari A, Davies J, Khunti K, Kadam UT, et al. Measuring multimorbidity in research: Delphi consensus study. BMJ Med. 2022;1(1):e000247.
- Dodds RM, Bunn JG, Hillman SJ, Granic A, Murray J, Witham MD, et al. Simple approaches to characterising multiple long-term conditions (multimorbidity) and rates of emergency hospital admission: findings from 495,465 UK Biobank participants. J Intern Med. 2023;293(1):100–9.
- 7. Barnett K, Mercer SW, Norbury M, Watt G, Wyke S, Guthrie B. Epidemiology of multimorbidity and implications for health care,

research, and medical education: a cross-sectional study. Lancet. 2012;380(9836):37–43.

- Cassell A, Edwards D, Harshfield A, Rhodes K, Brimicombe J, Payne R, et al. The epidemiology of multimorbidity in primary care: a retrospective cohort study. Br J Gen Pract. 2018;68(669):e245–51.
- Kingston A, Robinson L, Booth H, Knapp M, Jagger C. Projections of multi-morbidity in the older population in England to 2035: estimates from the Population Ageing and Care Simulation (PACSim) model. Age Ageing. 2018;47(3):374–80.
- Afshar S, Roderick PJ, Kowal P, Dimitrov BD, Hill AG. Multimorbidity and the inequalities of global ageing: a cross-sectional study of 28 countries using the World Health surveys. BMC Public Health. 2015;15(1):776.
- Garin N, Koyanagi A, Chatterji S, Tyrovolas S, Olaya B, Leonardi M, et al. Global multimorbidity patterns: a cross-sectional, population-based, multi-country study. J Gerontol A Biol Sci Med Sci. 2016;71(2):205–14.
- 12. Johnston MC, Crilly M, Black C, Prescott GJ, Mercer SW. Defining and measuring multimorbidity: a systematic review of systematic reviews. Eur J Public Health. 2019;29(1):182–9.
- Chen YH, Karimi M, Rutten-van Mölken MPMH. The disease burden of multimorbidity and its interaction with educational level. PLoS One. 2020;15(12):e0243275.
- 14. Guthrie B, Payne K, Alderson P, McMurdo ME, Mercer SW. Adapting clinical guidelines to take account of multimorbidity. BMJ. 2012;345:e6341.
- Whitty CJM, MacEwen C, Goddard A, Alderson D, Marshall M, Calderwood C, et al. Rising to the challenge of multimorbidity. BMJ. 2020;368:16964.
- Owen N, Dew L, Logan S, Denegri S, Chappell LC. Research policy for people with multiple long-term conditions and their carers. J Multimorb Comorb. 2022;12:26335565221104407.
- Witham MD, Cooper R, Missier P, Robinson SM, Sapey E, Sayer AA. Researching multimorbidity in hospital – can we deliver on the promise of health informatics? Eur Geriatr Med. 2023;14:765–8.
- 18. Mason J. Qualitative researching. 2nd ed. London: Sage; 2002.
- 19. Green J, Thorogood N. Qualitative methods for health research. 2nd ed. London: Sage; 2009.
- Sinnott C, Mc Hugh S, Browne J, Bradley C. GPs' perspectives on the management of patients with multimorbidity: systematic review and synthesis of qualitative research. BMJ Open. 2013;3(9):e003610.
- Price ML, Surr CA, Gough B, Ashley L. Experiences and support needs of informal caregivers of people with multimorbidity: a scoping literature review. Psychol Health. 2020;35(1):36–69.
- van der Aa MJ, van den Broeke JR, Stronks K, Plochg T. Patients with multimorbidity and their experiences with the healthcare process: a scoping review. J Comorb. 2017;7(1):11–21.
- Doessing A, Burau V. Care coordination of multimorbidity: a scoping study. J Comorb. 2015;5:15–28.
- Struckmann V, Leijten FRM, van Ginneken E, Kraus M, Reiss M, Spranger A, et al. Relevant models and elements of integrated care for multi-morbidity: results of a scoping review. Health Policy. 2018;122(1):23–35.
- 25. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. Int J Soc Res Methodol. 2005;8(1):19–32.
- Peters MDJ, Marnie C, Tricco AC, Pollock D, Munn Z, Alexander L, et al. Updated methodological guidance for the conduct of scoping reviews. JBI Evid Synth. 2020;18(10):2119–26.
- Tricco AC, Lillie E, Zarin W, O'Brien K, Colquhoun H, Kastner M, et al. A scoping review on the conduct and reporting of scoping reviews. BMC Med Res Methodol. 2016;16(1):15.
- Burton JK, Craig LE, Yong SQ, Siddiqi N, Teale EA, Woodhouse R, et al. Non-pharmacological interventions for preventing delirium in hospitalised non-ICU patients. Cochrane Database Syst Rev. 2021;7(7):Cd013307.
- 29. Cooke A, Smith D, Booth A. Beyond PICO: the SPIDER tool for qualitative evidence synthesis. Qual Health Res. 2012;22(10):1435–43.
- Kvarnström K, Westerholm A, Airaksinen M, Liira H. Factors contributing to medication adherence in patients with a chronic condition: a scoping review of qualitative research. Pharmaceutics. 2021;13(7):1100.
- 31. Methley AM, Campbell S, Chew-Graham C, McNally R, Cheraghi-Sohi S. PICO, PICOS and SPIDER: a comparison study of specificity and

- 32. Rethlefsen ML, Kirtley S, Waffenschmidt S, Ayala AP, Moher D, Page MJ, et al. PRISMA-S: an extension to the PRISMA statement for reporting literature searches in systematic reviews. Syst Rev. 2021;10(1):39.
- Stern C, Jordan Z, McArthur A. Developing the review question and inclusion criteria. Am J Nurs. 2014;114(4):53–6.
- Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): checklist and explanation. Ann Intern Med. 2018;169(7):467–73.
- Aebi NJ, Caviezel S, Schaefert R, Meinlschmidt G, Schwenkglenks M, Fink G, et al. A qualitative study to investigate Swiss hospital personnel's perceived importance of and experiences with patient's mentalsomatic multimorbidities. BMC Psychiatry. 2021;21(1):349.
- Andersen AB, Beedholm K, Kolbaek R, Frederiksen K. When clock time governs Interaction: how time influences health professionals' intersectoral collaboration. Qual Health Res. 2018;28(13):2059–70.
- 37. Andersen AB, Beedholm K, Kolbæk R, Frederiksen K. The role of 'mediators' of communication in health professionals' intersectoral collaboration: an ethnographically inspired study. Nurs Inq. 2019;26(4):e12310.
- Backman C, Stacey D, Crick M, Cho-Young D, Marck PB. Use of participatory visual narrative methods to explore older adults' experiences of managing multiple chronic conditions during care transitions. BMC Health Serv Res. 2018;18(1):482.
- Bartlett A, Clarke B. An exploration of healthcare professionals' beliefs about caring for older people dying from cancer with a coincidental dementia. Dementia. 2012;11(4):559–65.
- Ben-Menahem S, Sialm A, Hachfeld A, Rauch A, von Krogh G, Furrer H. How do healthcare providers construe patient complexity? A qualitative study of multimorbidity in HIV outpatient clinical practice. BMJ Open. 2021;11(11):e051013.
- Bosire EN. Patients' experiences of comorbid HIV/AIDS and diabetes care and management in Soweto, South Africa. Qual Health Res. 2021;31(2):373–84.
- Bosire EN, Norris SA, Goudge J, Mendenhall E. Pathways to care for patients with type 2 diabetes and HIV/AIDS comorbidities in Soweto, South Africa: an ethnographic study. Glob Health Sci Pract. 2021;9(1):15–30.
- Bosire EN, Mendenhall E, Norris SA, Goudge J. Patient-centred care for patients with diabetes and HIV at a public tertiary hospital in South Africa: an ethnographic study. Int J Health Policy Manag. 2021;10(9):534–45.
- 44. Bunn F, Burn AM, Robinson L, Poole M, Rait G, Brayne C, et al. Healthcare organisation and delivery for people with dementia and comorbidity: a qualitative study exploring the views of patients, carers and professionals. BMJ Open. 2017;7(1):e013067.
- Carusone SC, O'Leary B, McWatt S, Stewart A, Craig S, Brennan DJ. The lived experience of the hospital discharge "plan": a longitudinal qualitative study of complex patients. J Hosp Med. 2017;12(1):5–10.
- Cho J, Nilo D, Sterling MR, Kern LM, Safford MM, Pinheiro LC. Eliciting primary care and oncology provider perspectives on diabetes management during active cancer treatment. Support Care Cancer. 2021;29(11):6881–90.
- Cook PS, McCarthy AL. Cancer treatment decision-making with/ for older adults with dementia: the intersections of autonomy, capital, and power. Health Sociol Rev. 2018;27(2):184–98.
- Cullinan S, Fleming A, O'Mahony D, Ryan C, O'Sullivan D, Gallagher P, et al. Doctors' perspectives on the barriers to appropriate prescribing in older hospitalized patients: a qualitative study. Br J Clin Pharmacol. 2015;79(5):860–9.
- Doos L, Bradley E, Rushton CA, Satchithananda D, Davies SJ, Kadam UT. Heart failure and chronic obstructive pulmonary disease multimorbidity at hospital discharge transition: a study of patient and carer experience. Health Expect. 2015;18(6):2401–12.
- Duthie K, Strohschein FJ, Loiselle CG. Living with cancer and other chronic conditions: patients' perceptions of their healthcare experience. Can Oncol Nurs J. 2017;27(1):43–8.
- Ekdahl AW, Hellström I, Andersson L, Friedrichsen M. Too complex and time-consuming to fit in! Physicians' experiences of elderly patients and their participation in medical decision making: a grounded theory study. BMJ Open. 2012;2(3):e001063.

- Fabricius PK, Andersen O, Steffensen KD, Kirk JW. The challenge of involving old patients with polypharmacy in their medication during hospitalization in a medical emergency department: an ethnographic study. PLoS One. 2021;16(12):e0261525.
- Gallagher R, Gallagher P, Roche M, Fry M, Chenoweth L, Stein-Parbury J. Nurses' perspectives of the impact of the older person on nursing resources in the emergency department and their profile: a mixed methods study. Int Emerg Nurs. 2015;23(4):312–6.
- Goebel J, Valinski S, Hershey DS. Improving coordination of care among healthcare professionals and patients with diabetes and cancer. Clin J Oncol Nurs. 2016;20(6):645–51.
- Griffiths AW, Ashley L, Kelley R, Cowdell F, Collinson M, Mason E, et al. Decision-making in cancer care for people living with dementia. Psychooncology. 2020;29(8):1347–54.
- Surr CA, Kelley R, Griffiths AW, Ashley L, Cowdell F, Henry A, et al. Enabling people with dementia to access and receive cancer treatment and care: the crucial role of supportive networks. J Geriatr Oncol. 2020;11(7):1125–31.
- Ashley L, Kelley R, Griffiths A, Cowdell F, Henry A, Inman H, et al. Understanding and identifying ways to improve hospital-based cancer care and treatment for people with dementia: an ethnographic study. Age Ageing. 2021;50(1):233–41.
- Griffiths AW, Ashley L, Kelley R, Cowdell F, Collinson M, Mason E, et al. Balancing the needs of individuals and services in cancer treatment for people with dementia: a focused ethnographic study. Int J Nurs Stud. 2021;121:104006.
- Surr C, Griffiths AW, Kelley R, Ashley L, Cowdell F, Henry A, et al. Navigating cancer treatment and care when living with comorbid dementia: an ethnographic study. Support Care Cancer. 2021;29(5):2571–9.
- Hansson A, Svensson A, Ahlström BH, Larsson LG, Forsman B, Alsén P. Flawed communications: health professionals' experience of collaboration in the care of frail elderly patients. Scand J Public Health. 2018;46(7):680–9.
- Hultsjö S. Mental healthcare staff's knowledge and experiences of diabetes care for persons with psychosis–a qualitative interview study. Prim Health Care Res Dev. 2013;14(3):281–92.
- 62. Huque R, Elsey H, Fieroze F, Hicks JP, Huque S, Bhawmik P, et al. "Death is a better option than being treated like this": a prevalence survey and qualitative study of depression among multi-drug resistant tuberculosis in-patients. BMC Public Health. 2020;20(1):848.
- 63. Jayakody A, Carey M, Bryant J, Ella S, Hussein P, Warren E, et al. Exploring experiences and perceptions of Aboriginal and Torres Strait Islander peoples readmitted to hospital with chronic disease in New South Wales, Australia: a qualitative study. Aust Health Rev. 2021;45(4):411–7.
- Kuluski K, Hoang SN, Schaink AK, Alvaro C, Lyons RF, Tobias R, et al. The care delivery experience of hospitalized patients with complex chronic disease. Health Expect. 2013;16(4):e111–23.
- Ho J, Kuluski K, Gill A. A Patient-centered transitions framework for persons with complex chronic conditions. Care Manag J. 2015;16(3):159–69.
- Kuluski K, Tracy CS, Upshur RE. Perceived risk factors of health decline: a qualitative study of hospitalized patients with multimorbidity. Risk Manag Healthc Policy. 2015;8:63–72.
- 67. Kumlin M, Berg GV, Kvigne K, Hellesø R. Elderly patients with complex health problems in the care trajectory: a qualitative case study. BMC Health Serv Res. 2020;20(1):595.
- Kumlin M, Berg GV, Kvigne K, Hellesø R. Unpacking healthcare professionals' work to achieve coherence in the healthcare journey of elderly patients: an interview study. J Multidiscip Healthc. 2021;14:567–75.
- Lekas HM, Siegel K, Leider J. Challenges facing providers caring for HIV/ HCV-coinfected patients. Qual Health Res. 2012;22(1):54–66.
- Lilleheie I, Debesay J, Bye A, Bergland A. A qualitative study of old patients' experiences of the quality of the health services in hospital and 30 days after hospitalization. BMC Health Serv Res. 2020;20(1):446.
- Lo C, Ilic D, Teede H, Cass A, Fulcher G, Gallagher M, et al. The perspectives of patients on health-care for co-morbid diabetes and chronic kidney disease: a qualitative study. PLoS One. 2016;11(1):e0146615.
- Lo C, Ilic D, Teede H, Fulcher G, Gallagher M, Kerr PG, et al. Primary and tertiary health professionals' views on the health-care of patients with co-morbid diabetes and chronic kidney disease - a qualitative study. BMC Nephrol. 2016;17(1):50.

- Malley AM, Bourbonniere M, Naylor M. A qualitative study of older adults' and family caregivers' perspectives regarding their preoperative care transitions. J Clin Nurs. 2018;27(15–16):2953–62.
- Martin C, Burton M, Wyld L. Caregiver experiences of making treatment decisions for older women with breast cancer and dementia. Health Soc Care Community. 2022;30(5):e2058–68.
- 75. Mason B, Nanton V, Epiphaniou E, Murray SA, Donaldson A, Shipman C, et al. 'My body's falling apart.' Understanding the experiences of patients with advanced multimorbidity to improve care: serial interviews with patients and carers. BMJ Support Palliat Care. 2016;6(1):60.
- McWilliams L, Farrell C, Keady J, Swarbrick C, Burgess L, Grande G, et al. Cancer-related information needs and treatment decision-making experiences of people with dementia in England: a multiple perspective qualitative study. BMJ Open. 2018;8(4):e020250.
- McWilliams L, Swarbrick C, Yorke J, Burgess L, Farrell C, Grande G, et al. Bridging the divide: the adjustment and decision-making experiences of people with dementia living with a recent diagnosis of cancer and its impact on family carers. Ageing Soc. 2020;40(5):944–65.
- Mikkelsen TJ, Jensen MG, Danbjørg DB, Rothmann MJ. Nurses' experiences of caring for and managing hospitalized patients with schizophrenia and diabetes-an interpretative phenomenological analysis. Perspect Psychiatr Care. 2022;58(1):288–96.
- 79. Neiterman E, Wodchis WP, Bourgeault IL. Experiences of older adults in transition from hospital to community. Can J Aging. 2015;34(1):90–9.
- NikbakhtNasrabadi A, MardanianDehkordi L, Taleghani F. Nurses' experiences of transitional care in multiple chronic conditions. Home Health Care Manag Pract. 2021;33(4):239–44.
- Nikbakht-Nasrabadi A, Mardanian-Dehkordi L, Taleghani F. Abandonment at the transition from hospital to home: family caregivers' experiences. Ethiop J Health Sci. 2021;31(3):525–32.
- Perrault-Sequeira L, Torti J, Appleton A, Mathews M, Goldszmidt M. Discharging the complex patient - changing our focus to patients' networks of care providers. BMC Health Serv Res. 2021;21(1):950.
- 83. Rivers PH, Langford N, Whitehead A, Harrison T. What influences prescribing decisions in a multimorbidity and polypharmacy context on the acute medical unit? An interprofessional, qualitative study. J Eval Clin Pract. 2021;27(5):1076–84.
- Schiøtz ML, Høst D, Christensen MB, Domínguez H, Hamid Y, Almind M, et al. Quality of care for people with multimorbidity – a case series. BMC Health Serv Res. 2017;17(1):745.
- Schonfeld TL, Stevens EA, Lampman MA, Lyons WL. Assessing challenges in end-of-life conversations with elderly patients with multiple morbidities. Am J Hosp Palliat Care. 2012;29(4):260–7.
- Verhoeff M, van der Zaag HJ, Vermeeren Y, van Munster BC. Secondary care experiences of patients with multiple chronic conditions. Neth J Med. 2018;76(9):397–406.
- Witham G, Haigh C, Mitchell D, Beddow A. Carer experience supporting someone with dementia and cancer: a narrative approach. Qual Health Res. 2018;28(5):813–23.
- Younas A, Inayat S, Masih S. Nurses' perceived barriers to the delivery of person-centred care to complex patients: a qualitative study using theoretical domains framework. J Clin Nurs. 2023;32(3–4):368–81.
- KnutsenGlette M, Kringeland T, Røise O, Wiig S. Hospital physicians' views on discharge and readmission processes: a qualitative study from Norway. BMJ Open. 2019;9(8):e031297.
- Siddique SM, Tipton K, Leas B, Greysen SR, Mull NK, Lane-Fall M, et al. Interventions to reduce hospital length of stay in high-risk populations: a systematic review. JAMA Netw Open. 2021;4(9):e2125846.
- Stumm J, Thierbach C, Peter L, Schnitzer S, Dini L, Heintze C, et al. Coordination of care for multimorbid patients from the perspective of general practitioners – a qualitative study. BMC Fam Pract. 2019;20(1):160.
- Smith SM, Wallace E, Clyne B, Boland F, Fortin M. Interventions for improving outcomes in patients with multimorbidity in primary care and community setting: a systematic review. Syst Rev. 2021;10(1):271.
- Ishikawa H, Hashimoto H, Kiuchi T. The evolving concept of "patientcenteredness" in patient–physician communication research. Soc Sci Med. 2013;96:147–53.
- Harrison C, Fortin M, van den Akker M, Mair F, Calderon-Larranaga A, Boland F, et al. Comorbidity versus multimorbidity: why it matters. J Multimorb Comorb. 2021;11:2633556521993993.

- Harrison C, Britt H, Miller G, Henderson J. Examining different measures of multimorbidity, using a large prospective cross-sectional study in Australian general practice. BMJ Open. 2014;4(7):e004694.
- Head A, Fleming K, Kypridemos C, Schofield P, Pearson-Stuttard J, O'Flaherty M. Inequalities in incident and prevalent multimorbidity in England, 2004–19: a population-based, descriptive study. Lancet Healthy Longev. 2021;2(8):e489–97.
- Johnson-Lawrence V, Zajacova A, Sneed R. Education, race/ethnicity, and multimorbidity among adults aged 30–64 in the National Health Interview Survey. SSM Popul Health. 2017;3:366–72.
- Verest WJGM, Galenkamp H, Spek B, Snijder MB, Stronks K, van Valkengoed IGM. Do ethnic inequalities in multimorbidity reflect ethnic differences in socioeconomic status? The HELIUS study. Eur J Public Health. 2019;29(4):687–93.
- 99. Richmond Group of Charities Taskforce on Multiple Conditions. You only had to ask: what people with multiple conditions say about health equity. London: The Taskforce on Multiple Conditions; 2021.
- Mathur R, Hull SA, Badrick E, Robson J. Cardiovascular multimorbidity: the effect of ethnicity on prevalence and risk factor management. Br J Gen Pract. 2011;61(586):e262–70.
- Fonseca de Freitas D, Pritchard M, Shetty H, Khondoker M, Nazroo J, Hayes RD, et al. Ethnic inequities in multimorbidity among people with psychosis: a retrospective cohort study. Epidemiol Psychiatr Sci. 2022;31:e52.
- 102. Bisquera A, Gulliford M, Dodhia H, Ledwaba-Chapman L, Durbaba S, Soley-Bori M, et al. Identifying longitudinal clusters of multimorbidity in an urban setting: a population-based cross-sectional study. Lancet Reg Health Eur. 2021;3:100047.
- Holt RIG, Mitchell AJ. Diabetes mellitus and severe mental illness: mechanisms and clinical implications. Nat Rev Endocrinol. 2015;11(2):79–89.
- Moussavi S, Chatterji S, Verdes E, Tandon A, Patel V, Ustun B. Depression, chronic diseases, and decrements in health: results from the World Health Surveys. Lancet. 2007;370(9590):851–8.
- Calderón-Larrañaga A, Vetrano DL, Ferrucci L, Mercer SW, Marengoni A, Onder G, et al. Multimorbidity and functional impairment-bidirectional interplay, synergistic effects and common pathways. J Intern Med. 2019;285(3):255–71.
- Tsai TC, Jha AK. Hospital consolidation, competition, and quality: is bigger necessarily better? JAMA. 2014;312(1):29–30.
- 107. Vaughan LK, Bruijns S. Continuous flow models in urgent and emergency care. BMJ. 2022;379:o2751.

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