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Cost of treating rheumatoid arthritis in the primary care public health system in Ireland: A time-driven activity-based cost analysis☆

Christina Kenny [a,*], Shawn Chavrimootoo [b], Anushree Priyadarshini [c]

[a] College of Business, Technological University Dublin, Aungier Street, Dublin 2, Ireland
[b] Our Lady's Hospital Navan, Co. Meath, Ireland
[c] School of Business, Maynooth University, Maynooth, Kildare, Ireland

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ABSTRACT

Background: Chronic diseases are at epidemic proportions and continuing to increase in both incidence and prevalence globally. Therefore, there is a growing need to assess and improve on the value currently provided within chronic care pathways. Examining the costs associated with care pathways is a critical part of assessing this value in order to better understand and introduce potential cost-saving interventions.
Objectives: Examining one such chronic disease, Rheumatoid Arthritis (RA), this study aimed to assess the cost associated with RA in primary care within the Health Service Executive (HSE) in Ireland.
Methods: Following mapping of the care pathway, patient vignettes based on exemplar RA patient types were used to conduct semi-structured interviews with every member ($N = 21$) of the primary care RA pathway. Time-Driven Activity-Based Costing (TDABC) was then used to calculate the overall cost of each patient (vignette) type.
Results: RA is an expensive condition regardless of disease stage. However, newly diagnosed patients as well as those with advanced disease in need of surgical interventions demonstrated the highest costs in terms of primary care personnel use. Additionally, patients prescribed Biological Disease-Modifying Anti-Rheumatic Drugs (bDMARDs) cost significantly more than those on Conventional Synthetic Disease-Modifying Anti-Rheumatic Drugs (csDMARDs) regardless of disease stage or personnel resource use.
Conclusion: RA and a subset of RA patients that exert the highest healthcare costs are growing in prevalence. Therefore, this study contributes by assessing the costs associated with RA in HSE primary care that can facilitate better understanding the current value being provided and improve upon the current care pathway to cut future costs.

1. Introduction

The World Health Organisation (WHO) defines 'chronic diseases' as those of 'long duration that are the result of a combination of genetic, physiological, environmental and behaviour factors'. It states that chronic diseases are currently at epidemic proportions and were responsible for 40,545 deaths worldwide in 2018.[1] In 2019, 7 of the world's top 10 causes of death were due to chronic diseases.[2] In Ireland alone, there were 559,620 people living with at least one chronic disease in 2017[3] and by 2021 this figure increased to over 1 million.[4]

One chronic disease exerting pressure globally and also on the Health Service Executive (HSE) in Ireland is rheumatoid arthritis (RA). The condition affects around 1% of the global population and 1 in 100 people in Ireland.[5] Many of those individuals are so debilitated by their condition they can no longer work and thus exert an increasing cost on the Irish exchequer.[5] There have been shifts towards improving value in RA through cost-saving measures undertaken by the HSE, for example, there has been a significant push towards the uptake of biosimilar medications in place of brand-named ones.[6,7] There have also been attempts at more incremental changes to the rheumatology clinical networks and care pathways such as making the RA team more multidisciplinary in nature by utilising physiotherapists and

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* Corresponding author.
E-mail addresses: D18125471@mytudublin.ie (C. Kenny), Anu.Priyadarshini@mu.ie (A. Priyadarshini).

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occupational therapists alongside clinicians in secondary care and by attempting to diagnose RA at an earlier stage.[5] However, the efforts in providing value in RA care in Ireland have been sparse owing to limited understanding of what value is currently being provided within the RA care pathway. Most Irish studies have focused on the costs associated with RA medications[8] modelling of alternative care pathways[9] and the societal cost of the disease.[10] Thus, a critical first step in being able to provide value is exploring and understanding the full cost of the care pathway inclusive of the costs of its key actors within the HSE. Only following an accurate breakdown of costs can provisions for improving value be designed.

The escalating expenditure on chronic diseases such as RA along with the growing prevalence of chronic disease mean that there will be an even greater, mounting necessity towards value based health care (VBHC).[11] This shift in the direction of value-driven care alongside the expected increasing costs and incidence in chronic diseases, mean it will be vital for healthcare providers, especially state-funded providers to have a clear understanding of their current costs to improve upon the value they are currently affording.

This study therefore aims to explore the research gap that presently exists within RA treatment in Ireland: the lack of a clear understanding of current cost of the RA primary care pathway. As primary care is the first point of contact for chronic disease it is more important than ever to understand the true value provided in this care setting.[11] At present there is limited research that provides an in-depth breakdown of the costs associated with RA primary care within the HSE. Many studies break down the broader, societal costs associated with the condition[12] or specific aspects within the care pathway such as medications[13] but a specific breakdown of each actor in the care pathway remains unclear. This poses a significant problem in understanding and improving the value being provided by RA care within the HSE. The lack of clarity proves even more problematic as the existing landscape of healthcare is changing.[14] Therefore, this study endeavours to impart clarity and transparency by examining the total costs associated with RA care as well as understanding the costs associated with each of the key players and stakeholders.

Other studies examining the cost of RA care focus on non-European countries with vastly different healthcare structures and as such, accurate and relevant comparisons can not be drawn.[15] Similarly, prior studies often focus on calculating the cost of RA over the patient's lifetime[16] or compare consultant-led versus generalist-led clinics in secondary care.[17] Therefore, at present, it is difficult to compare the primary care costs associated with RA in Ireland with that of other countries.

1.1. Rheumatoid arthritis care pathway and its management in Ireland

The current RA care pathway in most EU countries, including Ireland starts with a general practitioner (GP) where the patient presents with potential symptoms of RA. The GP must decide to either refer the patient to a specialist within the HSE, carry out further testing or wait and see if symptoms resolve. Although GPs adhere to the National Institute for Health and Care Excellence (NICE)[18] and European Alliance for Associations in Rheumatology (EULAR)[19] guidelines when treating suspected RA cases not every case that presents in primary care is clear-cut and easy to resolve.[20] As GPs are not experts in the field of rheumatology and specifically, RA, their knowledge and skillsets vary widely across the country leading to differences in RA care and referral numbers. NICE[18] recommends that GPs refer patients who have 'persistent synovitis' of unidentified cause. The guidelines further endorse immediate referral for patients who have synovitis which involves the small joints of the hands or feet; more than one joint if affected; or there has been an interval of three or more months between the onset of symptoms and the seeking of medical advice. The EULAR guidelines advise to make a referral within 6 weeks of symptom commencement.[21] GPs may also carry out a number of confirmatory tests to substantiate their referral. The detailed care pathway is outlined in Fig. 1 below.

Upon specialist referral, the patient undergoes further investigation. If a positive diagnosis is received, the patient meets with a multidisciplinary team in tertiary care to decide how to best proceed with the management of RA. The treatment depends on results of initial investigations and severity of the disease. NICE guidelines treatment options also include pharmacological interventions, supportive treatments, or surgical intervention. Each treatment regimen requires physician monitoring and follow-up. Patients are typically prescribed methotrexate as a first line drug to treat their RA. However, the use of methotrexate is contraindicated for a range of comorbidities such as decreased kidney function[22] hepatitis B and canker sores.[23] Similarly, methotrexate has been described as "inefficient" with efficacy rates ranging from 30 to 40%.[24] NICE[18] recommends that patients undertake a follow-up review 6 months after the disease is under control and specifics of the treatment regimen have been worked out. After this, depending on the patient's general health status, a minimum annual review is advised to assess disease activity, check for comorbidity occurrence, evaluate the potential need for surgery and make referrals to appropriate multidisciplinary teams.

RA, like many chronic diseases, is complicated and highly dependent on HSE resources. As such, there is a need for careful, value-driven disease management to provide value to the exchequer, society and patient without compromising patient care.[25] As RA is a costly disease not only within Ireland[26] but also globally[27] there is mounting pressure to improve the care pathway and its management. Similarly, adding to this pressure is the fact that RA is expected to increase in prevalence and incidence by almost one third by 2040.[25] This will result in an even greater dependence on the HSE. Most studies on RA resource-use have been conducted outside of Ireland[28,29] or are focused on resource use through the lens of a particular drug or treatment.[29,30] As such, there is a need to breakdown the generalised costings within the scope of the Irish healthcare system.

2. Methods

2.1. TDABC: An accounting tool within chronic disease

Time-driven activity-based costing (TDABC) is a healthcare accounting tool created by Kaplan and Anderson[31] and was used within the scope of this study. TDABC was presented as a simplified version of its forerunner, activity-based costing (ABC). Previous accounting techniques utilised within the healthcare space were limited. Many required too many resources to actually carry out costing and most prioritised precision over accuracy.[32,33] TDABC, however focuses on time, generating a time equation which assigns the cost from the resource cost pools to products.[34] TDABC, unlike ABC,[35,36] requires two main parameters in order to be carried out. 1. The practical capacity of committed resources and their cost and 2. Unit times for performing transactional activities.[37]

Since its introduction in healthcare, TDABC has been employed in numerous healthcare settings, examining the costs of surgical procedures,[38] pre-surgical procedures,[39] various out-patient services such as urology, gastroenterology, dermatology, and psychiatry as well as costing various hospital centres such as radiotherapy departments.[40,41] TDABC has also been employed in primary care settings.[42] TDABC excels at improving value due to its ability to allow comparison of different settings or procedures, to detect inefficiencies in various healthcare settings, to improve resource allocation and to improve decision making and transparency.

Therefore, this study, following the main steps of TDABC first involved creating a process map of the current HSE RA care pathway. This was captured using academic literature, NICE guidelines as well as input and validation from a consultant rheumatologist. The map summarised the main process steps, actors involved, and resources consumed during the care pathway.

Five patient vignettes (Fig. 2) that captured the main RA patient

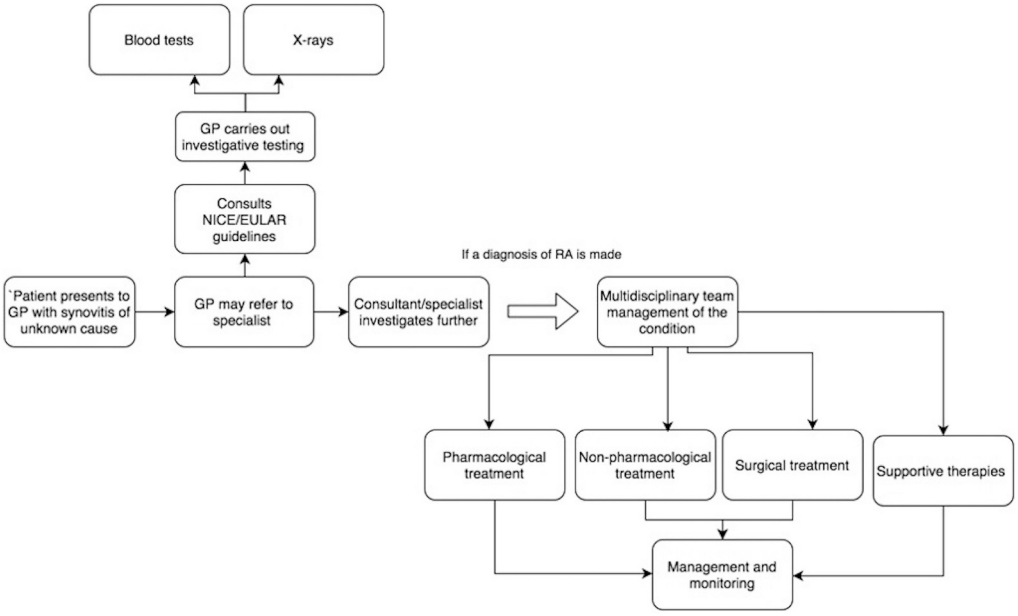

Fig. 1. Care pathway for patients presenting with RA symptoms.

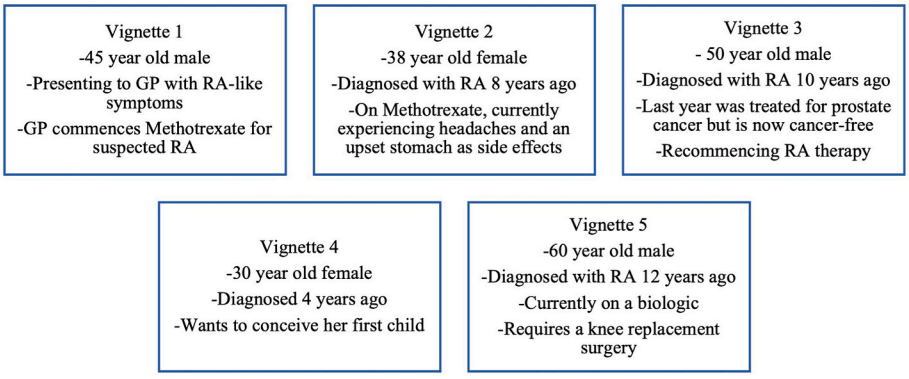

Fig. 2. The patient vignettes used during the study.

types encountered within the care pathway at every stage of RA were designed: 1. those that are newly diagnosed, 2. patients managing medication side-effects, 3. patients resuming treatment after cancer treatment 4. patients with their disease under control and 5. those with advanced, comorbid disease. The vignettes, that were made in consultation with a consultant rheumatologist also accounted for a range of medications and ages. While each vignette represented a patient with different clinical needs, there is some overlap in the overall needs of the patients as all require the same core personnel to oversee their care. Once the patient vignettes were validated with a consultant rheumatologist who verified the validity of such patient types, healthcare professionals (HCPs) ($N = 5$) in primary care were recruited to conduct a pilot study and took part in 20–30-min semi-structured tele-interviews. The pilot study asked the proposed questions that would be included in the main study such as how long HCPs would spend with each of the patient types, what role they had within their care and how long certain tasks would take them. Upon completion of the pilot, feedback from the pilot study was then incorporated into the main study for example clarifying wording, and shortening questions for efficiency. It was also suggested that interviews be as efficient as possible as HCPs in primary care don't have much free time during the working day.

To capture every member the RA primary care pathway, six participants from each group along the care pathway (occupational therapists (OTs), physiotherapists (PTs) and general practice nurses (GPNs)) and three administrative workers from primary care settings around the country ($N = 21$) participated in the research. These participants were recruited by emailing and calling primary care centres around the country and following up with participant information leaflets via email if centres wanted to learn more about the research. Following this, interested participants were then recruited. The interviews lasted approximately 20–30 min in duration. All of the interviews, aside from those with GP administrative workers centred around the five patient vignettes, that were shared with the participants in advance. The GP administrative workers did not use the patient vignettes as part of the interview process as their work was not dependent on the patient's health status. Instead, their interviews were more general in nature about time required for patient registration, appointment planning and prescription renewal.

The costs incurred by the HSE for GPs and community pharmacists are fixed, standardised fees and not time-dependent, therefore, while these professionals are part of the care pathway, interviews with them were not needed for cost assessment.

Recordings from each of the interviews were transcribed by the researcher.

2.2. Data analysis

In order to carry out data analysis of the qualitative interview data and costing of the RA care pathway in primary care, TDABC was employed which includes 4 main steps.

Step 1. Verifying the care process.

The care pathway as outlined in the literature review was mapped and verified by the consultant rheumatologist.

Step 2. Calculating cost rates.

After mapping the primary care pathway, data was extracted from the interview transcripts in which participants were asked to read carefully through each patient vignette and estimate how long they would likely spend with each. This estimation was then used to calculate the cost associated with that time. The mean time each actor within the pathway spent with each patient vignette per year was calculated. In order to calculate cost rates and thereby the overall cost, first, either salaries or costs to the HSE for each of the individuals along the care pathway were taken into account. These are provided either as a fixed sum or a variable rate (Table 1), and therefore, a minimum and maximum calculation was carried out for each participant in the care pathway.

Costs were separated into two groups. (i). Salaries and (ii). Stipends and standard costs.

(i) Salaries.

In the case of the primary care OTs and PTs, their annual salary was used to calculate cost rates. The first step in this calculation relies on calculating the practical capacity of the actors along the pathway. Days available to work was calculated based on the standard calendar days per year excluding public holidays and median number of HSE annual leave days. Capacity per day was calculated by assuming an 80% of a standard 37-h work week.[43] Finally, practical capacity per month was calculated using the practical capacity per day and the number of days worked per month.

(ii) Stipends and standard costs.

In order to cost the GP, GPN and GP administrative workers the minimum and maximum stipends and standard payments paid by the HSE were taken into account[43] and calculated in a similar manner to those for salaries.

Step 3. Accounting for consumables.

To calculate this cost, the payment provided by the HSE for each of the medications prescribed to each of the patient vignette types was used and calculated as a cost per year. These prescribed medications were identified and determined by the consultant rheumatologist. The standard annual dispensing fee per medical card holder (those patients receiving government subsidised healthcare) was also used to get the total value. The fees paid by the HSE are fixed and henceforth no minimum or maximum values here were used (Table 1).

Step 4. Allocate indirect costs.

Indirect costs relate to the used capacity of certain resources.[44] In this case, that relates to the aforementioned personnel time and associated costs of HCPs within the pathway. Indirect costs were calculated using the HCPs monthly salary (including pension and pay related social insurance) and their hours worked per month in order to get an hourly and subsequently, minute cost of each actor. The mean minutes care pathway actors spent with each vignette type was used to get the cost of each activity with each patient vignette type. Maximum and minimum costs for each patient vignette were calculated.

The monthly cost of the GPN and GP administrative workers were calculated in the same manner of the salaried HSE actors.

Finally, the costs at every step are added together for each patient vignette type to get an annual cost of each patient.

3. Results

3.1. Mapping the current care pathway

Results show that RA is a complex chronic disease involving input of expertise from a multidisciplinary range of HCPs across the HSE (Fig. 3), in order to get a clear RA diagnosis and to manage the condition both pharmacologically and non-pharmacologically.

3.2. The total cost of care

RA costs in primary care are a combination of two distinct costs: time spent with HCPs and medication costs. In terms of time spent with HCPs, it was identified that patients with advanced RA and newly diagnosed RA patients are amongst the most expensive patient cohorts within the scope of this study. Advanced patients are likely to be more complex in nature, have comorbidities and in need of pre- and post-operative care. As such, these patients require more time with allied HCPs such as OTs and PTs. Similarly, newly diagnosed patients require expert advice and counsel to understand their new diagnosis and get their disease under control initially and hence require the input of OTs and PTs. Advanced and newly diagnosed patients also require more time with GPNs than patients that fall somewhere in the centre of the spectrum. PTs and OTs both indicated they were highly unlikely to see patients who have their disease under control (several years post-diagnosis) but not yet advanced enough for referral to other departments (comorbid). Therefore, these patients were typically limited to routine, annual appointments with GPNs and/or GPs.

OTs were the most expensive allied HCP contributing to costs with a maximum cost of €1.19/min. This was followed closely by PTs which were costed at a maximum of €1.17/min. GP administrative workers were the least costly members of the care pathway at a maximum of €0.30/min.

Additionally, the total cost of care is heavily influenced by prescribed medication costs. Medication costs have the most significant impact on the overall cost of each patient (vignette) type. Patients on biological disease-modifying anti-rheumatic drugs (bDMARDs) cost significantly more than those on conventional synthetic disease-modifying anti-rheumatic drugs (csDMARDs) regardless of how much time they spend with each HCP due to the high annual cost of bDMARDs. The total cost of prescribed medications for each of the vignettes varied widely depending on the disease status and whether or not the patient was on a

Table 1
Pathway professional and the TDABC costing parameter utilised [61, 62, 63].

Pathway actor	Costing parameter used	Fixed/ Variable	Minimum costing parameter	Maximum costing parameter
GP	Standard cost of medical card patients to HSE	Fixed	Standard cost of medical card patients to HSE- No minimum	Standard cost of medical card patients to HSE- No maximum
OT	HSE salary	Variable	Lowest HSE salary available for this group	Highest HSE salary available for this group
PT	HSE salary	Variable	Lowest HSE salary available for this group	Highest HSE salary available for this group
GPN	HSE provided stipend	Variable	Lowest HSE provided stipend	Highest HSE provided stipend
GP administrative workers	HSE provided stipend	Variable	Lowest HSE provided stipend	Highest HSE provided stipend
Community Pharmacist	HSE standardised payment	Fixed	Standard cost of medication and dispensing to HSE – No minimum	Standard cost of medication and dispensing to HSE – No maximum

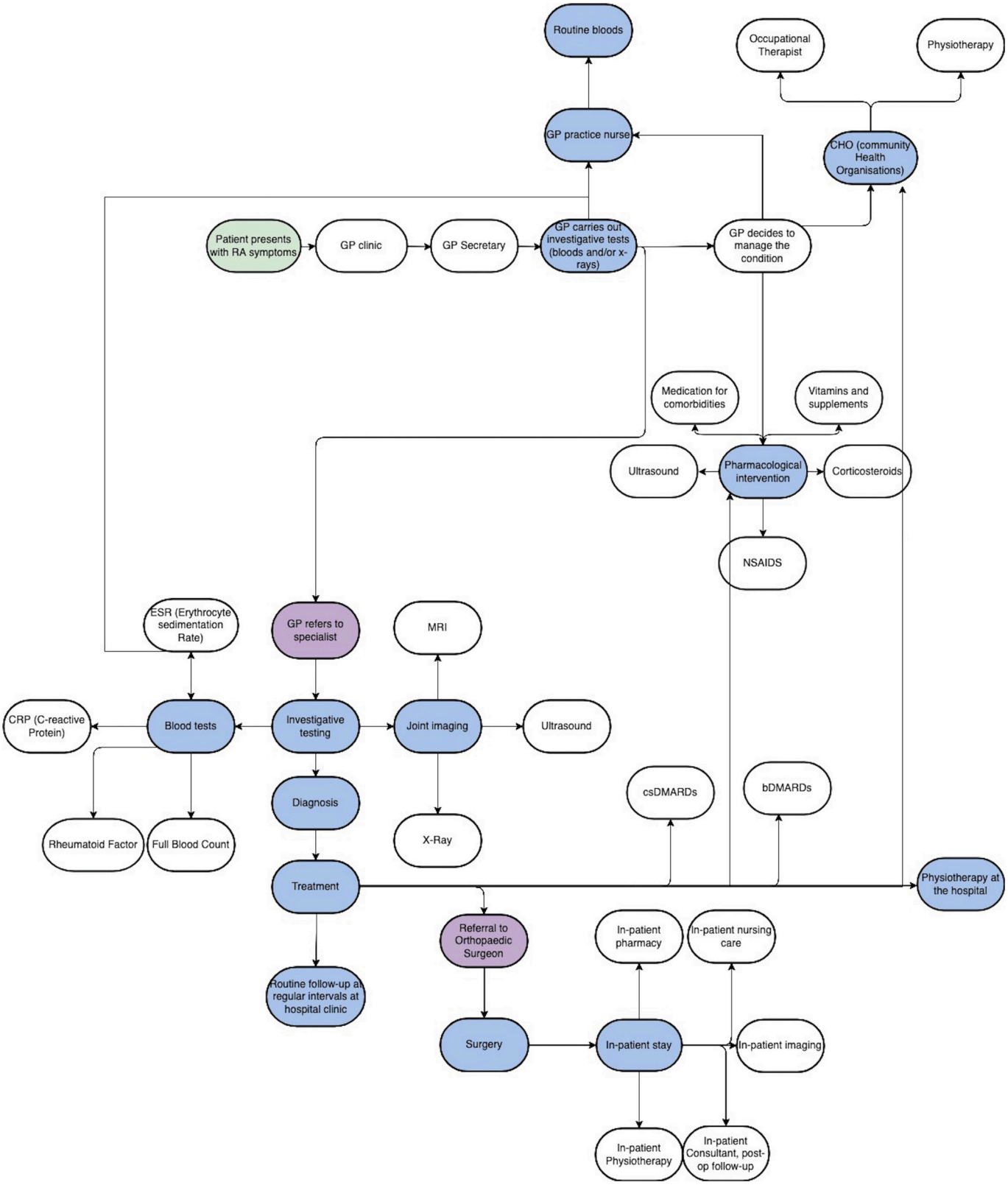

Fig. 3. The current RA care pathway.

biologic or conventional DMARD. The average annual cost of bDMARDs (€8718.98) was 72 times higher than csDMARDs (€120.87). Thus, the difference between whether a patient was on a csDMARD or bDMARD had the biggest influence on total, overall costs amongst the patient vignettes. Patients on the least expensive bDMARD cost 68 times more than a patient on csDMARDs along with other medications to treat their condition (folic acid, anti-inflammatory medications etc).

4. Discussion

The complexity of RA as a chronic disease is reflected in the varied multidisciplinary management of different exemplar patient types (Fig. 2). Due to the demanding nature of the condition, it is vital to examine specific cost drivers and ways to improve efficiency. RA is an expensive chronic condition to treat regardless of disease state due to the requirement to manage disease progression in both outpatient and GP settings.[26]

The TDABC analysis of the five exemplar patient types highlighted the aforementioned increased use of healthcare resources. The demand placed on the healthcare system by each exemplar patient type differed in terms of time spent with HCPs and costs of prescribed medication. In terms of direct resource use, newly diagnosed patients and advanced patients necessitated more time with all primary care HCPs in order to prepare for next steps in their treatment. Newly diagnosed RA patients were amongst the most costly due to the need for increased investigative testing to both confirm their disease and ensure that therapy is effective and the disease is under control which results in more time spent with GPs, GPNs and by extension, more interaction with GP administrative staff such as GP administrative workers. Additionally, these patients need time with OTs and PTs after initial diagnosis to ensure they have the necessary education and tools to appropriately care for themselves, understand their disease and effectively manage it. This result was not surprising as newly diagnosed RA patients have been noted to be more expensive than those at other stages of their disease due to the increased service demands that go along with a new diagnosis.[15] This study also found that patients with advanced age and disease progression also exerted higher RA costs than other RA patient types. This result can be attributed to age as it was one of the main determinants of comorbidity. By age 50 half of all people have at least one comorbidity.[43] Between the ages of 45–64 around one third of all RA patients have multimorbidity. This figure increases to 65% when RA patients enter the 65–84 age bracket.[45] RA patients advanced in age and disease state are more likely to require surgery[46] and as such, within the primary care setting, will require more time with all HCPs both in identification of this requirement, preparation and post-operative rehabilitation and recovery. Similar findings have been previously discussed by Tatangelo et al..[15] Their study demonstrated that both initial diagnosis of RA along with advanced RA cost the most while costs in between both of these phases tended to level out and not exert the same impact.

While these phases of disease have a clear impact on cost so too does timing and age of diagnosis. Late or delayed diagnosis can result in increased costs as 90% of joint damage can be prevented by early intervention with RA pharmacological therapies.[47] This demonstrates a clear need for fast and efficient diagnosis and treatment of RA, a service that is difficult to provide within the HSE at present due to the lack of infrastructure and improved care pathways.

This study also demonstrated that that consumables costs were particularly high in bDMARD users versus csDMARD users. Those prescribed bDMARDs over csDMARDs exerted a significantly higher cost on the HSE regardless of their direct resource usage. bDMARDs are known to be substantially more expensive than csDMARDs and their use is increasing globally.[48] While it is hoped that their increased efficacy compared to csDMARDs will prevent future hospitalisations and subsequent later healthcare costs, this is both up for debate[46,49,50] and not included within the scope of this primary care study.

Regardless of the individual costs of each patient type, all the patient vignette types examined exert a substantial cost on the HSE when scaled up to the Irish population. In general, RA patients is an expensive disease. Healthcare costs in RA are estimated to be around 3 times higher than the average annual healthcare costs for non-RA patients[26] and increasing bDMARD use has only added to this cost.[51] It has been linked to increased usage of primary care and non-primary care services and therefore the utilisation of numerous HCPs within the primary care chain is not surprising. This is particularly true for patients within the HSE with medical cards. Medical cards provide certification that certain patients are entitled to free healthcare services such as GP visits and reduced prescription costs. Doherty & O'Neill[26] have also outlined that RA patients with medical cards have proven to be more costly, estimated to cost over 40% more than their private counterparts as they present to their GP more often and avail of more services. Numerous studies have demonstrated that RA patients utilise increased inpatient visits, outpatient visits and pharmacy visits compared to non-RA cohorts.[52–54]

This study was the first of its kind to confirm these findings within RA in an Irish setting. This is particularly noteworthy as many of these patients will be availing Irish medical cards and receiving subsidised healthcare, therefore it is vital that Irish policy makers be aware of the key cost drivers associated with RA and its management. By understanding the different cost-drivers associated with different RA patients, the primary care system can be further scrutinised and analysed for efficiency. An intricate understanding of the current pathway and its current costs at each stage allow for potential interventions to be examined such as virtual interventions, pathway changes and minimising personnel task overlap. Such changes and interventions have the potential to lower costs by reducing the number of personnel required for RA treatment and diagnosis.

4.1. Limitations and future directions

This study is not without its limitations. The interview data was based on a limited sample size of participants which may limit the generalisability of these findings. Similarly, the patient vignettes on which this study was developed do not represent every RA patient type but instead attempt to capture the main RA patient types across the health spectrum.

TDABC also relies on the assumption that all estimates given by HCPs are both accurate and honest and without any inherent bias, none of which can be guaranteed.

This study also only examines the primary care portion of RA care and does not take into account the resource-use involved in secondary care settings. As such, the next steps for this study will involve costing the secondary HSE RA care pathway in Ireland to get a more comprehensive understanding of the entire pathway.

5. Conclusion

This study contributes by providing a comprehensive breakdown of the costs incurred in providing value within RA primary care so it can potentially be improved upon.

RA is a costly condition for the HSE to treat regardless of disease stage or comorbidity presence. If RA continues on its current trajectory it is expected to increase in incidence by 30% by 2040.[27] This will result in more older people living with the condition and henceforth a greater prevalence of comorbidities, the need for multidisciplinary intervention and increased medication use, particularly an increase in the use of costly bDMARDs. All of this results in an amplified economic burden within the scope of RA. Due to the potential course of RA there is a growing necessity to make the current pathway more efficient and accessible to everyone involved. More efficient diagnosis of the condition will lead to improved disease outcomes, reducing costs later in the condition.[55] It has also been previously demonstrated that improved management in primary care can reduce the hospital-related costs of some chronic conditions[56] and reduce emergency hospital visits.[57] Therefore, pathway changes might also help reduce future costs. Newly diagnosed RA patients require increased interactions with allied HCPs such as OTs and PTs as well as close and regular monitoring from their GPs and GPNs to ensure that they understand their condition and know how best to manage it as well as ensuring pharmacological therapy is working effectively. Similarly, patients with advanced and progressed RA, particularly in older individuals costs more due to the need for increased interventions such as surgery. Such interventions require

extensive preparation pre-surgery and careful care and management post-operatively.

CRediT authorship contribution statement

Christina Kenny: Data curation, Investigation, Methodology, Writing – original draft. **Shawn Chavrimootoo:** Supervision, Validation. **Anushree Priyadarshini:** Conceptualization, Supervision, Writing – review & editing.

Declaration of competing interest

None.

Appendix A. Patient Vignettes

Title of Study: Value in Healthcare: Comparing Traditional and Virtual Clinic Care Pathways of Preventable Chronic Disease in Ireland.

A.1. Acronym: €coHealth

1. Tom is a 45-year old man who presented to his GP with tender, swollen joints, stiffness, fatigue and a loss of appetite. After a thorough consultation and no other obvious explanation for these symptoms, his GP has carried out the diagnostic tests and identified he has Rheumatoid Arthritis and has decided to put him on medication.
2. Mary has been a patient at a Rheumatoid Arthritis clinic since she was diagnosed with the condition 8 years ago. She is 38. She has been on Methotrexate to treat her Rheumatoid Arthritis for a number of years. In the last few months, she has developed further side-effects and complications from her medication that she hasn't had previously. Mary has been complaining of headaches and a regularly upset stomach. Her doctor cannot identify any other reason for these side-effects other than her medication. Alongside this, recent bloods have shown she has an abnormal liver function.
3. Frank is 50 and has been on Methotrexate to treat his Rheumatoid Arthritis for 10 years. However, last year Frank's case became more complicated when he was diagnosed with prostate cancer and underwent an intensive treatment regime of chemotherapy. Frank recently been given the all clear from his oncologist and is cancer free and finished his chemotherapy. He is still being treated for his RA and he was off methotrexate during prostate cancer and stopped during radio and chemo, back on it after getting the all-clear.
4. Lucy has been on a biologic to treat Rheumatoid Arthritis since she was diagnosed 4 years ago. Aside from her RA, she is an otherwise healthy 30-year old woman with no previous history of other clinical diseases. After recently getting married, Lucy and her husband have decided to start a family of their own and have decided to try and conceive for the first time.
5. Patrick is 60 and has been on a biologic to treat his Rheumatoid Arthritis for 12 years with no other comorbidities. In recent years he has been treated for additional pain in his knee and after a couple of years of targeted treatment with corticosteroids and painkillers he needs a knee replacement surgery.

IMO GP Agreement – January 2021 Changes

As you will be aware under the agreement the most recent increase was due from January 2021. This increase is 10.22%.

All percentage increases are in relation to all capitation bar the under 6 capitation rate which remains the same.

Overall Increase

Patient Category	Payment
Patients aged under 6 (including Supplementary out-of-hours fee)	€125
Enhanced capitation for Asthmatic Under 6 patients	
Registration Fee	€50
First year after registration	€90
Each subsequent year	€45
Male patient aged 6 years or more and less than 16 years	€58.84
Female patient aged 6 years or more and less than 16 years	€59.52
Male patient aged 16 years or more and less than 45 years	€75.11
Female patient aged 16 years or more and less than 45 years	€122.83
Male patient aged 45 years or more and less than 65 years	€150.03
Female patient aged 45 years or more and less than 65 years	€164.86
Male patient aged 65 years or more and less than 70 years	€158.04
Female patient aged 65 years or more and less than 70 years	€176.32
Patient aged 70 years or more residing in the community	€369.18
Patient aged 70 years or more residing in a private nursing home (approved by the HSE) for continuous periods in excess of 5 weeks	€590.10
Supplementary out-of-hours fee	€3.64
Enhanced capitation for type 2 diabetic GMS patients registered on the cycle of care	
Registration fee	€30
Enhanced capitation	€100

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