

Putting NICE guidance into practice

Resource impact report: iFuse for treating chronic sacroiliac joint pain (MTG39)

Published: October 2018

Summary

NICE has recommended iFuse for treating chronic sacroiliac joint pain.

The eligible population for iFuse is people with a confirmed diagnosis of chronic sacroiliac joint pain and whose pain is inadequately controlled by non-surgical management.

Investment in iFuse costs around £7,100 per person (including the cost of the implant, the implant procedure and associated outpatient attendances). This leads to long-term savings due to reduced steroid injections for these people over a number of years. The annual impact for England is modelled in this report.

We estimate that around 2,850 people currently have a confirmed diagnosis of chronic sacroiliac joint pain and around 570 (20%) of these people will have pain that is inadequately controlled by non-surgical management and are therefore eligible for treatment with iFuse. Of these, around 427 people (75%) are expected to be treated with iFuse over years 1-3.

We also estimate that around 355 people are likely to be newly diagnosed with chronic sacroiliac joint pain each year and around 70 (20%) of these people will be eligible for treatment with iFuse. Of these, around 53 people (75%) are expected to be treated with iFuse.

It is assumed that once people with a confirmed diagnosis of chronic sacroiliac joint pain whose pain is inadequately controlled by non-surgical management are treated (the prevalent population), that around 53 people per year (the incident population) will be treated with iFuse.

Over the next 5 years we estimate the following resource impact for England:

Table 1 Estimated annual resource impact of implementing the guidance for the population of England

	2018/19	2019/20	2020/21	2021/22	2022/23
Number of people from prevalent population treated with iFuse	43	192	192		
Number of people from incident population treated with iFuse	0	27	80	53	53
Total number of people treated with iFuse each year	43	219	272	53	53
Unit cost of treatment with iFuse (£)	7,116	7,116	7,116	7,116	7,116
Cost of iFuse (£000)	304	1,556	1,933	377	377
Savings from injections					
Year 1 number of injections saved	85	85	85	85	85
Year 2 number of injections saved		437	437	437	437
Year 3 number of injections saved			543	543	543
Year 4 number of injections saved				106	106
Year 5 number of injections saved					106
Total injections saved	85	523	1,066	1,172	1,278
Cost per injection (£)	531	531	531	531	531
Total saving (£000)	45	278	566	622	679
Resource impact (£000)	259	1,278	1,367	-245	-301

This report is supported by a [resource impact template](#) which may be used to calculate the resource impact of implementing the guidance by amending the variables.

This technology is commissioned by clinical commissioning groups. Providers are NHS hospital trusts.

1 iFuse for treating sacroiliac joint pain

1.1 NICE has recommended [iFuse for treating chronic sacroiliac joint pain](#).

- The case for adopting the iFuse implant system to treat chronic sacroiliac joint pain is supported by the evidence.
- iFuse should be considered for use in people with a confirmed diagnosis of chronic sacroiliac joint pain and whose pain is inadequately controlled by non-surgical management.

1.2 Chronic sacroiliac joint pain can affect people of any age and usually needs lifelong management. The standard of care is escalating non-surgical management, typically beginning with analgesic therapy (such as non-steroidal anti-inflammatory drugs or opioids) combined with physiotherapy.

1.3 If these initial treatments are ineffective, invasive procedures may be considered. These include steroid injections into the sacroiliac joint itself and radiofrequency ablation to the nerves that supply the joint. Sacroiliac joint fusion may be considered if the chronic pain continues.

1.4 The iFuse implant system (SI-Bone) is a titanium implant intended for use in people with chronic sacroiliac joint pain. iFuse is placed across the sacroiliac joint using minimally invasive surgery, where it is intended to stabilise the joint and to correct any misalignment or weakness that can cause chronic pain.

1.5 The health economics indicates that after 8 years, using iFuse instead of non-surgical management will save the NHS around £129 per person. It is likely that after 8 years, these savings will increase over time. Savings mainly come from fewer steroid joint injections and less pain relief medication with iFuse compared with non-surgical management

1.6 Investment in iFuse costs around £7,100 per person (including the cost of the implant, the implant procedure and associated outpatient attendances). This leads to long-term savings for these people over a number of years. The annual impact for England is modelled in this report.

2 Resource impact of the guidance

2.1 We estimate that:

- around 2,850 people in England with chronic sacroiliac joint pain are currently treated non-surgically (the prevalent population)
- around 360 newly diagnosed people each year (the incident population) will be treated non-surgically
- based on expert clinical opinion 20% of these people will be eligible for iFuse and 75% of these people will accept the offer of treatment
- this is equivalent to a total of 427 people from the prevalent population and 53 people each year (from year 2 onwards) from the incident population
- the prevalent population is assumed to be treated over the first 3 years, while the incident population is treated from year 2 onwards. This gives the total number of people treated as shown on table 2.

Table 2 Total number of people having iFuse treatment each year

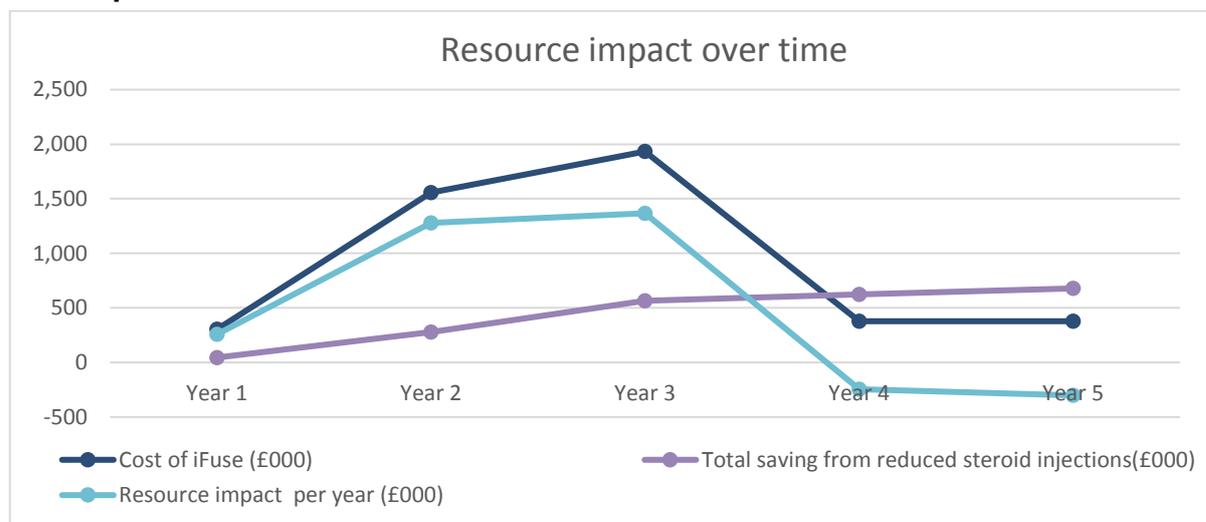
	Year 1	Year 2	Year 3	Year 4	Year 5
Prevalent population	43	192	192		
Incident population	0	27	80	53	53
Total number of people having iFuse each year	43	219	272	53	53

- 2.2 The current treatment and future uptake figure assumptions are based on clinical expert opinion and are shown in the resource impact template.
- 2.3 The estimated annual resource impact of implementing this guidance for the population of England based on the uptake in the resource impact assumptions is shown in table 3.

Table 3 Resource impact of implementing the guidance using NICE assumptions

	2018/19	2019/20	2020/21	2021/22	2022/23
Number of people from prevalent population treated with iFuse	43	192	192		
Number of people from incident population treated with iFuse	0	27	80	53	53
Total number of people treated with iFuse each year	43	219	272	53	53
Unit cost of treatment with iFuse (£)	7,116	7,116	7,116	7,116	7,116
Cost of iFuse (£000)	304	1,556	1,933	377	377
Savings from injections					
Year 1 number of injections saved	85	85	85	85	85
Year 2 number of injections saved		437	437	437	437
Year 3 number of injections saved			543	543	543
Year 4 number of injections saved				106	106
Year 5 number of injections saved					106
Total injections saved	85	523	1,066	1,172	1,278
Cost per injection (£)	531	531	531	531	531
Total saving (£000)	45	278	566	622	679
Resource impact (£000)	259	1,278	1,367	-245	-301

Chart 1 Resource impact of implementing the guidance using NICE assumptions



- 2.4 This report is supported by a [resource impact template](#) which may be used to calculate the resource impact of implementing the guidance by amending the variables.

Savings and benefits

- 2.5 For people who are eligible for iFuse there will be a reduced need for steroidal injections. Steroidal injections would normally be administered 2 times a year for up to 8 years.

3 Implications for commissioners

- 3.1 This technology is commissioned by clinical commissioning groups (CCGs). Providers are NHS hospital trusts.
- 3.2 CCGs may see an initial increase in costs for surgical procedures and outpatient appointments in years 1 to 3 as people begin to be treated with iFuse.
- 3.3 There is currently no funding arrangements in place for the reimbursement of iFuse devices and therefore we encourage commissioners and providers to discuss this locally.

- 3.4 CCGs will benefit from the reduced cost of steroidal injections from year 1. This saving will continue to increase each year as more people are treated with iFuse.
- 3.5 iFuse falls within the programme budgeting category 15x Problems of the Musculo skeletal system.

4 How we estimated the resource impact

The population

- 4.1 The eligible population for iFuse is people with a confirmed diagnosis of chronic sacroiliac joint pain and whose pain is inadequately controlled by non-surgical management.
- 4.2 According to Hospital Episodes Statistics (NHS Digital), during 2016/17 there were around 2,850 people in England who received an injection for therapeutic substance into a joint for pain management. We have assumed that this is the prevalent population that are being treated conservatively.
- 4.3 We have assumed that the incident population is equal to around 12.5% of the prevalent population. This equates to around 360 people per year.

Table 4 Number of people eligible for treatment in England

Population	Proportion of previous row (%)	Number of people
Adult population		43,482,790
Number of people with lower back pain ¹	33	14,350,000
Number of people who seek advice for lower back pain ¹	20	2,870,000
Number of people with sacroiliac lower back pain ²	22.5	646,000
Number of people receiving conservative treatment for sacroiliac joint pain ³	0.44	2,850
Number of people who are eligible for iFuse ⁴	20	570
Number of people who accept the offer of iFuse (Total number of people estimated to have iFuse from the prevalent population from year 1 to year 3) ⁴	75	427
Number of newly diagnosed people (0.06% x 646,000)	0.06	360
People eligible in the incident population for iFuse ⁴	20	70
People in the incident population accepting the offer of iFuse ⁴	75	53
¹ Source: Low Back Pain: Early Management of Persistent Non-specific Low Back Pain ² Source: Sacroiliac joint pain: a comprehensive review of epidemiology, diagnosis and treatment. ³ Source: Reference costs 16/17 ⁴ Source: Clinical expert opinion		

Assumptions

4.4 The resource impact template assumes that:

- There are currently around 2,850 people receiving non-surgical treatment with steroidal injections for sacroiliac joint pain. It is assumed that each person has 2 courses of steroid injections per year.
- Based on clinical expert opinion 20% of these people will be eligible for iFuse and it is expected that 75% of these people will accept the offer of surgery.

- We have assumed that implementation for the people with chronic sacroiliac joint pain will be 10% (of the prevalent population) in year 1, 50% (of the remaining prevalent population and of the incident population) in year 2 and 100% (of the remaining prevalent and incident population) from year 3 onwards.
- It is assumed that the procedure to fit the iFuse device is HN14E, Intermediate Hip Procedures for Non-Trauma, 19 years and over, [national tariff 18/19](#), the average tariff is based on the average complexity and comorbidities from reference costs 16/17.
- It is assumed that a steroidal injection is classed as an injection of Therapeutic Substance into Joint for Pain Management AB19Z in [national tariff 18/19](#).

Sensitivity analysis

- 4.5 We cannot be certain of the assumption around acceptance of the offer of iFuse surgery in the model. Varying the acceptance of surgery from 50% to 100% leads to a saving from between £201,000 and £401,000 in year 5.

About this resource impact report

This resource impact report accompanies the NICE guidance on [iFuse for treating sacroiliac joint pain](#) and should be read with it.

© NICE 2018. All rights reserved. See [Notice of rights](#).