

Project Title

Reduce Incidence of Delirium in Elderly Hip Fracture Patients

Project Lead and Members

Project lead: Ms Ku Li Ting

Project members: Dr Ong Eng Hui, Ms Stephanie Tai, Ms Yap Yan Mei, Ms Nani Adilla Binte Zailani, Ms Sarah Tiaw Lijane and Ms Nursyahidah Binte Kamarnzaman

Organisation(s) Involved

Tan Tock Seng Hospital

Healthcare Family Group(s) Involved in this Project

Allied Health, Ancillary Care, Medical, Nursing

Applicable Specialty or Discipline

Orthopaedic Surgery, Geriatric Medicine, Occupational Therapy and Physiotherapy

Project Period

Start date: October 2018

Completed date: February 2021

Aims

To reduce the incidence of delirium in hip fracture patients above age of 60 at risk of developing delirium admitted to TTSH Ward 12C & 12D from 20% to 10% within the next 6 months

Project Attachment

See poster attached/below

Background

See poster attached/below

Methods

See poster attached/below

Results

See poster attached/below

Conclusion

See poster attached/below

Additional Information

Accorded the NHG Quality Day 2021 (Category C: Developing a Flexible & Sustainable Workforce) Best Award

Project Category

Care & Process Redesign

Value Based Care, Patient Reported Outcome Measures

Keywords

Delirium, Hip Fracture

Name and Email of Project Contact Person(s)

Name: Ms Ku Li Ting

Email: li_ting_ku@ttsh.com.sg

Mission Statement

To reduce the incidence of delirium in hip fracture patients above age of 60 at risk of developing delirium admitted to TTSH Ward 12C & 12D from 20% to 10% within the next 6 months

Team Members

	Name	Designation	Department
Team Leader	Ms Ku Li Ting	Case Manager	Orthopaedics
Team Members	Dr Ong Eng Hui	Associate Consultant	GRM
	Ms Stephanie Tai	Case Manager	Orthopaedics
	Ms Yap Yan Mei	Physiotherapist	Physiotherapy
	Ms Nani Adilla Binte Zailani	Occupational Therapist	Occupational Therapy
	Ms Sarah Tiaw Lijane	Senior Staff Nurse	Ward 12D
	Ms Nursyahidah Binte Kamarnzaman	Staff Nurse	Ward 12C

Advisors: Dr Rani Ramason, Dr Ivan Chua, Dr Daniel Lee Kwang Ti

Mentor: Dr William Chan

Sponsors: Adj A/Prof Lee Keng Thiam & Ms Maheas D/O Thanmugham

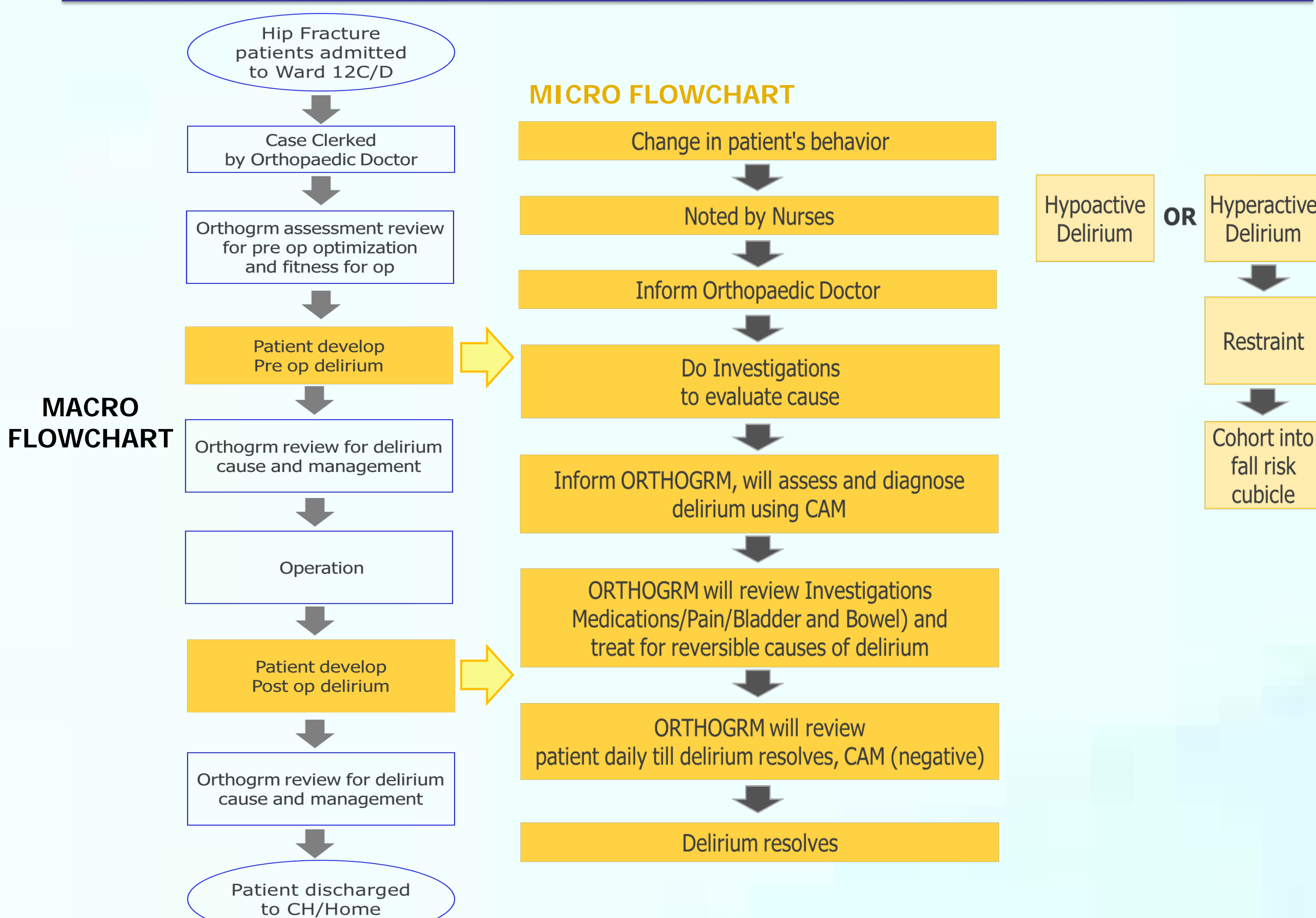
Evidence for a Problem Worth Solving

- Delirium is an acute mental disturbance characterized by confused thinking and disrupted attention usually accompanied by disordered speech and hallucinations.
- Delirium in hip fractured patients is a frequent complication, with an incidence of rate varying 13%-70%.¹
- Post operative delirium is associated with poor outcomes, such as impaired functional and cognitive recovery, increased hospital length of stay, higher cost and increased mortality.²
- Delirium can be reduced by early surgery, early delirium detection, aggressive pain management, early mobilization and early treatment of post-operative complications.³

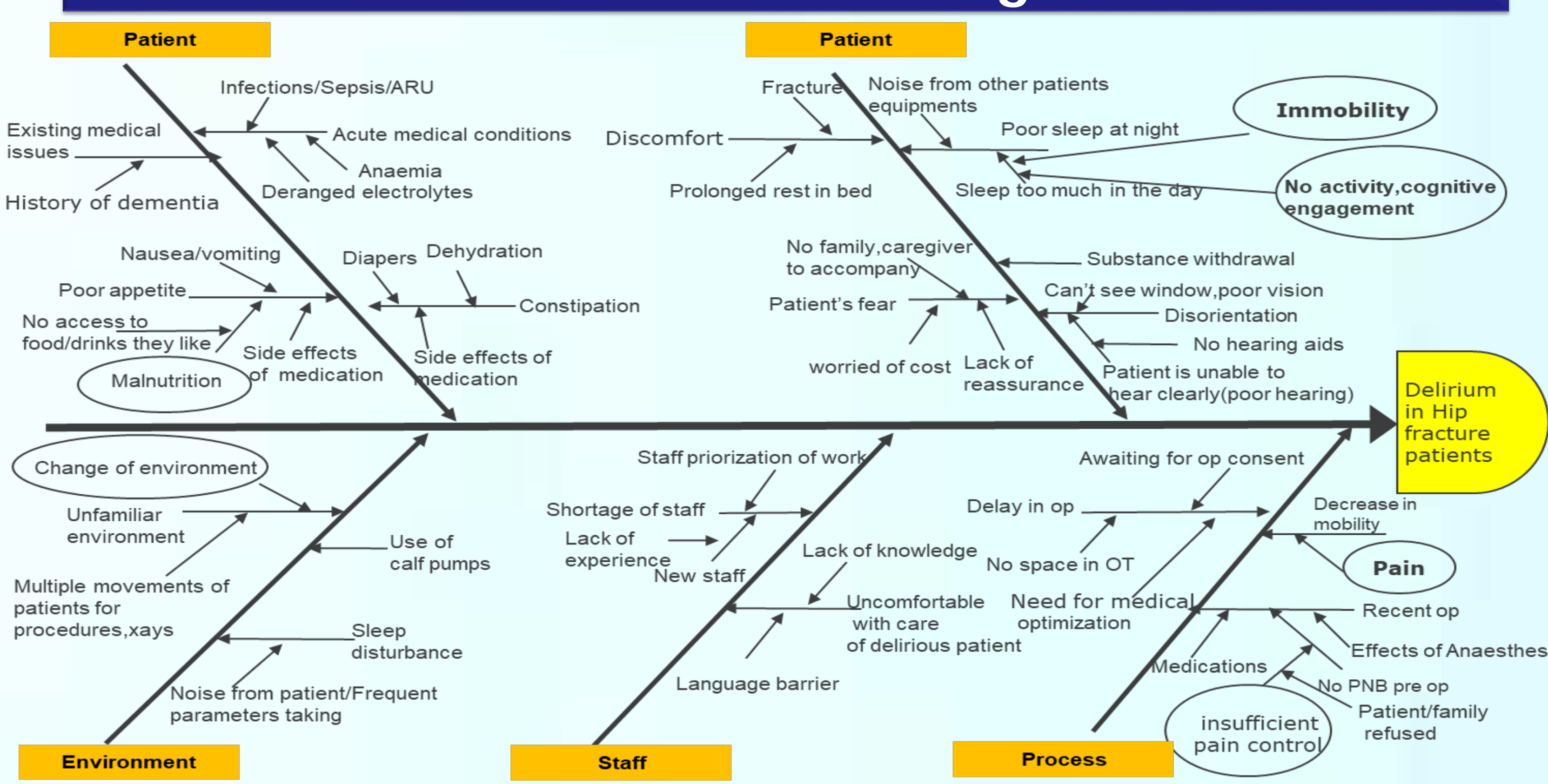
References:

- Bruce AJ. The Incidence of Delirium Associated with Orthopaedic Surgery: a Meta-Analytic Review. Int Psychogeriatr. 2007 Apr; 19(2):197-214.
- Carpintero P. Complications of Hip Fractures: A review. World J Orthop. 2014 Sep 18;5(4):402-411
- Mok WQ. Implementation of an Integrated Delirium Prevention System of Care for Elderly Patients with Hip Fractures. IJIC 2017;17(5):A432.

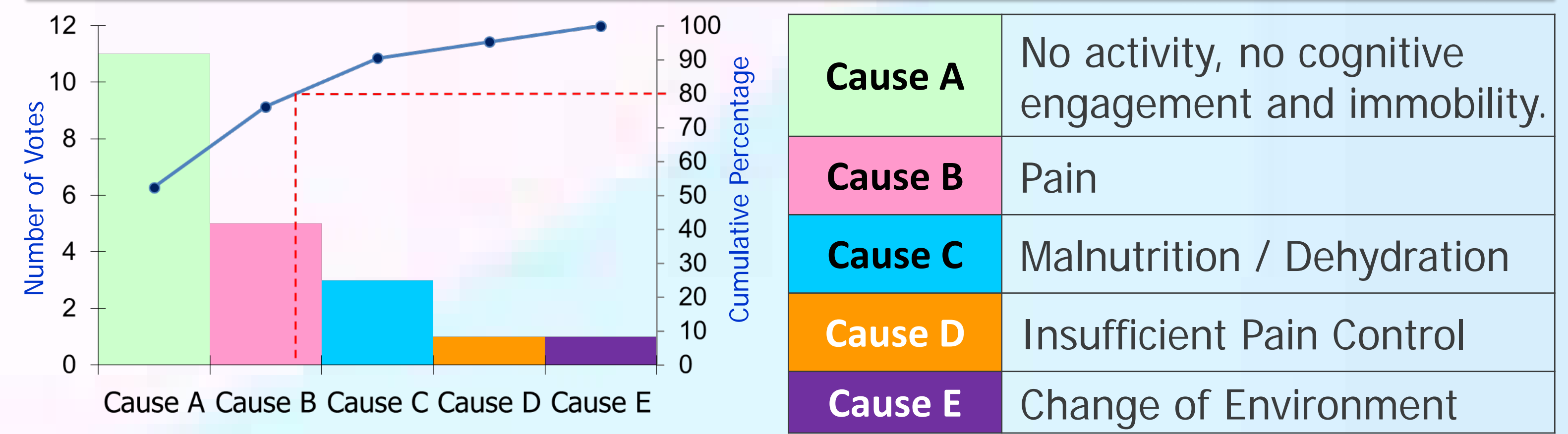
Flow Chart of Process



Cause and Effect Diagram



Pareto Chart

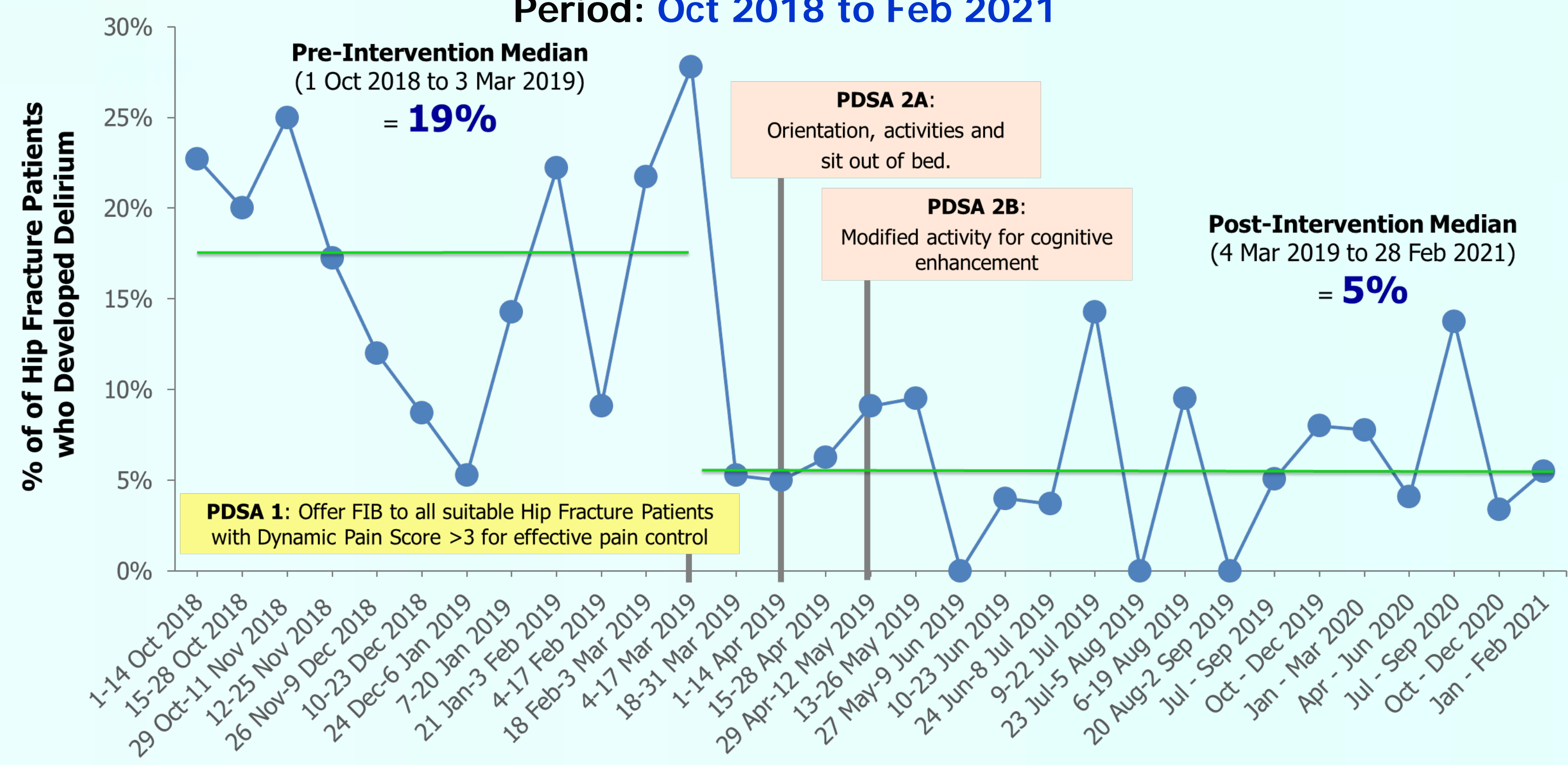


Implementation

Root Cause	Intervention	Implementation Date
Cause B: Pain	PDSA 1: Offer FIB (Fascia Iliaca Block) to all suitable Hip Fracture Patients with Dynamic Pain Score >3 for effective pain control	12 Mar 2019
Cause A: No activity, no cognitive engagement and immobility	PDSA 2A: Orientation, activities and sit out of bed.	1 Apr 2019
	PDSA 2B: Modified activity for cognitive enhancement	2 May 2019

Results

Percentage of Hip Fracture Patients who Developed Delirium Period: Oct 2018 to Feb 2021



Hip Fracture Cases	1-14 Oct 18	15-28 Oct 18	29 Oct 18 - 11 Nov 18	12-25 Nov 18	26 Nov 18 - 9 Dec 18	10-23 Dec 18	24 Dec 18 - 6 Jan 19	7-20 Jan 19	21 Jan 19 - 3 Feb 19	4-17 Feb 19	18 Feb 19 - 3 Mar 19	4-17 Mar 19	18-31 Mar 19	1-14 Apr 19	15-28 Apr 19	29 Apr 19 - 12 May 19	13-26 May 19	27 May 19 - 9 Jun 19	10-23 Jun 19	24 Jun 19 - 8 Jul 19	9-22 Jul 19	23 Jul 19 - 5 Aug 19	6-19 Aug 19	20 Aug 19 - 2 Sep 19	3-16 Sep 19	17-30 Sep 19	1-14 Oct 19	15-28 Oct 19	29 Oct 19 - 11 Nov 19	12-25 Nov 19	26 Nov 19 - 9 Dec 19	10-23 Dec 19	24 Dec 19 - 6 Jan 20	7-20 Jan 20	21 Jan 20 - 3 Feb 20	4-17 Feb 20	18 Feb 20 - 3 Mar 20	4-17 Mar 20	18-31 Mar 20	1-14 Apr 20	15-28 Apr 20	29 Apr 20 - 12 May 20	13-26 May 20	27 May 20 - 9 Jun 20	10-23 Jun 20	24 Jun 20 - 8 Jul 20	9-22 Jul 20	23 Jul 20 - 5 Aug 20	6-19 Aug 20	20 Aug 20 - 2 Sep 20	3-16 Sep 20	17-30 Sep 20	1-14 Oct 20	15-28 Oct 20	29 Oct 20 - 11 Nov 20	12-25 Nov 20	26 Nov 20 - 9 Dec 20	10-23 Dec 20	24 Dec 20 - 6 Jan 21	7-20 Jan 21	21 Jan 21 - 3 Feb 21	4-17 Feb 21	18 Feb 21 - 3 Mar 21	4-17 Mar 21	18-31 Mar 21	1-14 Apr 21	15-28 Apr 21	29 Apr 21 - 12 May 21	13-26 May 21	27 May 21 - 9 Jun 21	10-23 Jun 21	24 Jun 21 - 8 Jul 21	9-22 Jul 21	23 Jul 21 - 5 Aug 21	6-19 Aug 21	20 Aug 21 - 2 Sep 21	3-16 Sep 21	17-30 Sep 21	1-14 Oct 21	15-28 Oct 21	29 Oct 21 - 11 Nov 21	12-25 Nov 21	26 Nov 21 - 9 Dec 21	10-23 Dec 21	24 Dec 21 - 6 Jan 22	7-20 Jan 22	21 Jan 22 - 3 Feb 22	4-17 Feb 22	18 Feb 22 - 3 Mar 22	4-17 Mar 22	18-31 Mar 22	1-14 Apr 22	15-28 Apr 22	29 Apr 22 - 12 May 22	13-26 May 22	27 May 22 - 9 Jun 22	10-23 Jun 22	24 Jun 22 - 8 Jul 22	9-22 Jul 22	23 Jul 22 - 5 Aug 22	6-19 Aug 22	20 Aug 22 - 2 Sep 22	3-16 Sep 22	17-30 Sep 22	1-14 Oct 22	15-28 Oct 22	29 Oct 22 - 11 Nov 22	12-25 Nov 22	26 Nov 22 - 9 Dec 22	10-23 Dec 22	24 Dec 22 - 6 Jan 23	7-20 Jan 23	21 Jan 23 - 3 Feb 23	4-17 Feb 23	18 Feb 23 - 3 Mar 23	4-17 Mar 23	18-31 Mar 23	1-14 Apr 23	15-28 Apr 23	29 Apr 23 - 12 May 23	13-26 May 23	27 May 23 - 9 Jun 23	10-23 Jun 23	24 Jun 23 - 8 Jul 23	9-22 Jul 23	23 Jul 23 - 5 Aug 23	6-19 Aug 23	20 Aug 23 - 2 Sep 23	3-16 Sep 23	17-30 Sep 23	1-14 Oct 23	15-28 Oct 23	29 Oct 23 - 11 Nov 23	12-25 Nov 23	26 Nov 23 - 9 Dec 23	10-23 Dec 23	24 Dec 23 - 6 Jan 24	7-20 Jan 24	21 Jan 24 - 3 Feb 24	4-17 Feb 24	18 Feb 24 - 3 Mar 24	4-17 Mar 24	18-31 Mar 24	1-14 Apr 24	15-28 Apr 24	29 Apr 24 - 12 May 24	13-26 May 24	27 May 24 - 9 Jun 24	10-23 Jun 24	24 Jun 24 - 8 Jul 24	9-22 Jul 24	23 Jul 24 - 5 Aug 24	6-19 Aug 24	20 Aug 24 - 2 Sep 24	3-16 Sep 24	17-30 Sep 24	1-14 Oct 24	15-28 Oct 24	29 Oct 24 - 11 Nov 24	12-25 Nov 24	26 Nov 24 - 9 Dec 24	10-23 Dec 24	24 Dec 24 - 6 Jan 25	7-20 Jan 25	21 Jan 25 - 3 Feb 25	4-17 Feb 25	18 Feb 25 - 3 Mar 25	4-17 Mar 25	18-31 Mar 25	1-14 Apr 25	15-28 Apr 25	29 Apr 25 - 12 May 25	13-26 May 25	27 May 25 - 9 Jun 25	10-23 Jun 25	24 Jun 25 - 8 Jul 25	9-22 Jul 25	23 Jul 25 - 5 Aug 25	6-19 Aug 25	20 Aug 25 - 2 Sep 25	3-16 Sep 25	17-30 Sep 25	1-14 Oct 25	15-28 Oct 25	29 Oct 25 - 11 Nov 25	12-25 Nov 25	26 Nov 25 - 9 Dec 25	10-23 Dec 25	24 Dec 25 - 6 Jan 26	7-20 Jan 26	21 Jan 26 - 3 Feb 26	4-17 Feb 26	18 Feb 26 - 3 Mar 26	4-17 Mar 26	18-31 Mar 26	1-14 Apr 26	15-28 Apr 26	29 Apr 26 - 12 May 26	13-26 May 26	27 May 26 - 9 Jun 26	10-23 Jun 26	24 Jun 26 - 8 Jul 26	9-22 Jul 26	23 Jul 26 - 5 Aug 26	6-19 Aug 26	20 Aug 26 - 2 Sep 26	3-16 Sep 26	17-30 Sep 26	1-14 Oct 26	15-28 Oct 26	29 Oct 26 - 11 Nov 26	12-25 Nov 26	26 Nov 26 - 9 Dec 26	10-23 Dec 26	24 Dec 26 - 6 Jan 27	7-20 Jan 27	21 Jan 27 - 3 Feb 27	4-17 Feb 27	18 Feb 27 - 3 Mar 27	4-17 Mar 27	18-31 Mar 27	1-14 Apr 27	15-28 Apr 27	29 Apr 27 - 12 May 27	13-26 May 27	27 May 27 - 9 Jun 27	10-23 Jun 27	24 Jun 27 - 8 Jul 27	9-22 Jul 27	23 Jul 27 - 5 Aug 27	6-19 Aug 27	20 Aug 27 - 2 Sep 27	3-16 Sep 27	17-30 Sep 27	1-14 Oct 27	15-28 Oct 27	29 Oct 27 - 11 Nov 27	12-25 Nov 27	26 Nov 27 - 9 Dec 27	10-23 Dec 27	24 Dec 27 - 6 Jan 28	7-20 Jan 28	21 Jan 28 - 3 Feb 28	4-17 Feb 28	18 Feb 28 - 3 Mar 28	4-17 Mar 28	18-31 Mar 28	1-14 Apr 28	15-28 Apr 28	29 Apr 28 - 12 May 28	13-26 May 28	27 May 28 - 9 Jun 28	10-23 Jun 28	24 Jun 28 - 8 Jul 28	9-22 Jul 28	23 Jul 28 - 5 Aug 28	6-19 Aug 28	20 Aug 28 - 2 Sep 28	3-16 Sep 28	17-30 Sep 28	1-14 Oct 28	15-28 Oct 28	29 Oct 28 - 11 Nov 28	12-25 Nov 28	26 Nov 28 - 9 Dec 28	10-23 Dec 28	24 Dec 28 - 6 Jan 29	7-20 Jan 29	21 Jan 29 - 3 Feb 29	4-17 Feb 29	18 Feb 29 - 3 Mar 29	4-17 Mar 29	18-31 Mar 29	1-14 Apr 29	15-28 Apr 29	29 Apr 29 - 12 May 29	13-26 May 29	27 May 29 - 9 Jun 29	10-23 Jun 29	24 Jun 29 - 8 Jul 29	9-22 Jul 29	23 Jul 29 - 5 Aug 29	6-19 Aug 29	20 Aug 29 - 2 Sep 29	3-16 Sep 29	17-30 Sep 29	1-14 Oct 29	15-28 Oct 29	29 Oct 29 - 11 Nov 29	12-25 Nov 29	26 Nov 29 - 9 Dec 29	10-23 Dec 29	24 Dec 29 - 6 Jan 30	7-20 Jan 30	21 Jan 30 - 3 Feb 30	4-17 Feb 30	18 Feb 30 - 3 Mar 30	4-17 Mar 30	18-31 Mar 30	1-14 Apr 30	15-28 Apr 30	29 Apr 30 - 12 May 30	13-26 May 30	27 May 30 - 9 Jun 30	10-23 Jun 30	24 Jun 30 - 8 Jul 30	9-22 Jul 30	23 Jul 30 - 5 Aug 30	6-19 Aug 30	20 Aug 30 - 2 Sep 30	3-16 Sep 30	17-30 Sep 30	1-14 Oct 30	15-28 Oct 30	29 Oct 30 - 11 Nov 30	12-25 Nov 30	26 Nov 30 - 9 Dec 30	10-23 Dec 30	24 Dec 30 - 6 Jan 31	7-20 Jan 31	21 Jan 31 - 3 Feb 31	4-17 Feb 31	18 Feb 31 - 3 Mar 31	4-17 Mar 31	18-31 Mar 31	1-14 Apr 31	15-28 Apr 31	29 Apr 31 - 12 May 31	13-26 May 31	27 May 31 - 9 Jun 31	10-23 Jun 31	24 Jun 31 - 8 Jul 31	9-22 Jul 31	23 Jul 31 - 5 Aug 31	6-19 Aug 31	20 Aug 31 - 2 Sep 31	3-16 Sep 31	17-30 Sep 31	1-14 Oct 31	15-28 Oct 31	29 Oct 31 - 11 Nov 31	12-25 Nov 31	26 Nov 31 - 9 Dec 31	10-23 Dec 31	24 Dec 31 - 6 Jan 32	7-20 Jan 32	21 Jan 32 - 3 Feb 32	4-17 Feb 32	18 Feb 32 - 3 Mar 32	4-17 Mar 32	18-31 Mar 32	1-14 Apr 32	15-28 Apr 32	29 Apr 32 - 12 May 32	13-26 May 32	27 May 32 - 9 Jun 32	10-23 Jun 32	24 Jun 32 - 8 Jul 32	9-22 Jul 32	23 Jul 32 - 5 Aug 32	6-19 Aug 32	20 Aug 32 - 2 Sep 32	3-16 Sep 32	17-30 Sep 32	1-14 Oct 32	15-28 Oct 32	29 Oct 32 - 11 Nov 32	12-25 Nov 32	26 Nov 32 - 9 Dec 32	10-23 Dec 32	24 Dec 32 - 6 Jan 33	7-20 Jan 33	21 Jan 33 - 3 Feb 33	4-17 Feb 33	18 Feb 33 - 3 Mar 33	4-17 Mar 33	18-31 Mar 33	1-14 Apr 33	15-28 Apr 33	29 Apr 33 - 12 May 33	13-26 May 33	27 May 33 - 9 Jun 33	10-23 Jun 33	24 Jun 33 - 8 Jul 33	9-22 Jul 33	23 Jul 33 - 5 Aug 33	6-19 Aug 33	20 Aug 33 - 2 Sep 33	3-16 Sep 33	17-30 Sep 33	1-14 Oct 33	15-28 Oct 33	29 Oct 33 - 11 Nov 33	12-25 Nov 33	26 Nov 33 - 9 Dec 33	10-23 Dec 33	24 Dec 33 - 6 Jan 34	7-20 Jan 34	21 Jan 34 - 3 Feb 34	4-17 Feb 34	18 Feb 34 - 3 Mar 34	4-17 Mar 34	18-31 Mar 34	1-14 Apr 34	15-28 Apr 34	29 Apr 34 - 12 May 34	13-26 May 34	27 May 34 - 9 Jun 34	10-23 Jun 34	24 Jun 34 - 8 Jul 34	9-22 Jul 34	23 Jul 34 - 5 Aug 34	6-19 Aug 34	20 Aug 34 - 2 Sep 34	3-16 Sep 34	17-30 Sep 34	1-14 Oct 34	15-28 Oct 34	29 Oct 34 - 11 Nov 34	12-25 Nov 34	26 Nov 34 - 9 Dec 34	10-23 Dec 34	24 Dec 34 - 6 Jan 35	7-20 Jan 35	21 Jan 35 - 3 Feb 35	4-17 Feb 35	18 Feb 35 - 3 Mar 35	4-17 Mar 35	18-31 Mar 35	1-14 Apr 35	15-28 Apr 35	29 Apr 35 - 12 May 35	13-26 May 35	27 May 35 - 9 Jun 35	10-23 Jun 35	24 Jun 35 - 8 Jul 35	9-22 Jul 35	23 Jul 35 - 5 Aug 35	6-19 Aug 35	20 Aug 35 - 2 Sep 35	3-16 Sep 35	17-30 Sep 35	1-14 Oct 35	15-28 Oct 35	29 Oct 35 - 11 Nov 35	12-25 Nov 35	26 Nov 35 - 9 Dec 35	10-23 Dec 35	24 Dec 35 - 6 Jan 36	7-20 Jan 36	21 Jan 36 - 3 Feb 36	4-17 Feb 36	18 Feb 36 - 3 Mar 36	4-17 Mar 36	18-31 Mar 36	1-14 Apr 36	15-28 Apr 36	29 Apr 36 - 12 May 36	13-26 May 36	27 May 36 - 9 Jun 36	10-23 Jun 36	24 Jun 36 - 8 Jul 36	9-22 Jul 36	23 Jul 36 - 5 Aug 36	6-19 Aug 36	20 Aug 36 - 2 Sep 36	3-16 Sep 36	17-30 Sep 36	1-14 Oct 36	15-28 Oct 36	29 Oct 36 - 11 Nov 36	12-25 Nov 36	26 Nov 36 - 9 Dec 36	10-23 Dec 36	24 Dec 36 - 6 Jan 37	7-20 Jan 37	21 Jan 37 - 3 Feb 37	4-17 Feb 37	18 Feb 37 - 3 Mar 37	4-17 Mar 37	18-31 Mar 37	1-14 Apr 37	15-28 Apr 37	29 Apr 37 - 12 May 37	13-26 May 37	27 May 37 - 9 Jun 37	10-23 Jun 37	24 Jun 37 - 8 Jul 37	9-22 Jul 37	23 Jul 37 - 5 Aug 37	6-19 Aug 37	20 Aug 37 - 2 Sep 37	3-16 Sep 37	17-30 Sep 37	1-14 Oct 37	15-28 Oct 37	29 Oct 37 - 11 Nov 37	12-25 Nov 37	26 Nov 37 - 9 Dec 37	10-23 Dec 37	24 Dec 37 - 6 Jan 38	7-20 Jan 38	21 Jan 38 - 3 Feb 38	4-17 Feb 38	18 Feb 38 - 3 Mar 38	4-17 Mar 38	18-31 Mar 38	1-14 Apr 38	15-28 Apr 38	29 Apr 38 - 12 May 38	13-26 May 38	27 May 38 - 9 Jun 38	10-23 Jun 38	24 Jun 38 - 8 Jul 38	9-22 Jul 38	23 Jul 38 - 5 Aug 38	6-19 Aug 38	20 Aug 38 - 2 Sep 38	3-16 Sep 38	17-30 Sep 38	1-14 Oct 38	15-28 Oct 38	29 Oct 38 - 11 Nov 38	12-25 Nov 38	26 Nov 38 - 9 Dec 38	10-23 Dec 38	24 Dec 38 - 6 Jan 39	7-20 Jan 39	21 Jan 39 - 3 Feb 39	4-17 Feb 39	18 Feb 39 - 3 Mar 39	4-17 Mar 39	18-31 Mar 39	1-14 Apr 39	15-28 Apr 39	29 Apr 39 - 12 May 39	13-26 May 39	27 May 39 - 9 Jun 39	10-23 Jun 39	24 Jun 39 - 8 Jul 39	9-22 Jul 39	23 Jul 39 - 5 Aug 39	6-19 Aug 39	20 Aug 39 - 2 Sep 39	3-16 Sep 39	17-30 Sep 39	1-14 Oct 39	15-28 Oct 39	29 Oct 39 - 11 Nov 39	12-25 Nov 39	26 Nov 39 - 9 Dec 39</
--------------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	----------------------	--------------	----------------------	-------------	----------------------	-------------	----------------------	-------------	--------------	-------------	--------------	-----------------------	--------------	------------------------