



Leonardo Group

Your Partner in Lean Excellence

LEANHOSPITAL

Lean Hospital 2012

Seminars Improvement Programs Coaching Tools



Clinical Units
Clinical Support Services
Emergency Department
Perioperative Services
Logistics and Material Management
Administrative Processes
Scheduling



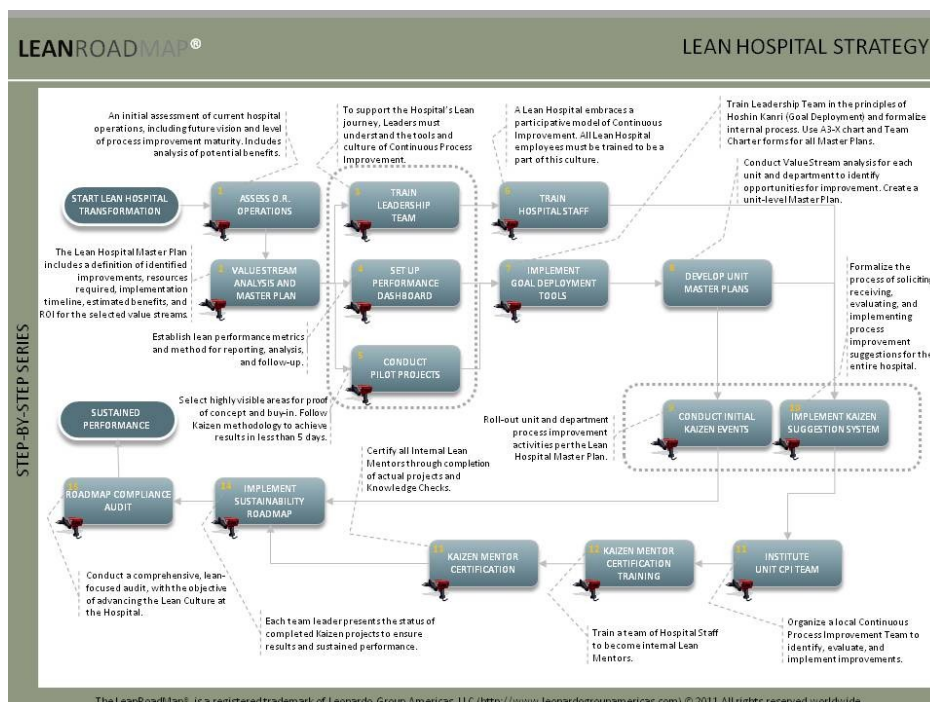
The Lean Hospital Roadmap

The implementation of Lean methods and thinking in a hospital environment should be a proven, step-by-step process, based on a successful track record of hundreds of Lean projects. We've documented that process in the Lean Hospital Roadmap.

The Lean Hospital LeanRoadMap™ leads you through the process of a hospital-wide Lean transformation. Additional tools, reference materials and tips are also referenced as needed. A complete and sustained implementation of Lean principles described in this roadmap will result in a host of benefits, including improved patient flow, timely discharges, improved patient and staff satisfaction, reduced errors and increased physician retention.

Lean Hospital Roadmap includes the following detailed maps:

- 1.1 Assess Operations and Develop Master Plan
- 1.2 Train Leadership Team
- 1.3 Set Up Performance Dashboard
- 1.4 Conduct Pilot Project
- 1.5 Train Hospital Staff
- 1.6 Develop Unit Master Plans
- 1.7 Implement Kaizen Suggestion System
- 1.8 Conduct Initial Kaizen Events
- 1.9 Institute CPI Unit-Based Councils
- 1.10 Kaizen Leader Training
- 1.11 Kaizen Leader Certification
- 1.12 Conduct Kaizen Fishbowl
- 1.13 Lean Hospital Certification
- 1.14 Perform Audits and Certify Hospital



7S and Visual Workplace for Hospitals

The concept of elimination of waste by improving housekeeping via the 5S set of tools, has been applied successfully many times over. This workshop addresses the implementation of 5S plus two key elements in Hospitals settings, Safety and Security.

Workshop Description

This workshop starts with the basics of organization as it applies to hospital settings and their specific requirements. This workshop uses the time-tested method of hands-on learning. The time is organized in short lecture segments followed by actual mini-kaizens carried out by the students. The instructor roams the teams as they complete their projects and prepare a succinct presentation to share the results of their work.

Agenda

- Introduction to Lean—What is Lean. How does it apply to Healthcare and Hospitals
- Quick and Easy 5S—The garage story
- First S: **Sort** — Why Sort; Where to sort; 5 things to remove; red-tagging
- Second S: **Straighten** — Some simple rules; A place for everything; Visual Management
- Third S: **Shine** — Remember your mother; 5 simple steps; Cleaning means Inspection
- Fourth S: **Standardize** — What is it; What if we do not; How to do it; Prevention
- Fifth S: **Sustain** — How to sustain; Tools to sustain; What is we do not
- The Five Levels of Excellence
- Sixth S: **Safety** — Ergonomic considerations and rules; Infection control; Safety checklists
- Seventh S: **Security** — Impact of changes on hospital alerts; Security checklist
- JCAHO checklist

Who Should Attend

Every member of the hospital staff should attend this workshop. The highest priority must be given to the members of the implementation teams. We recommend:

- Charge Nurses and RNs
- Technologists
- Environmental Services
- Guest Services
- Infection Control
- Performance Excellence
- JCAHO compliance
- Security

Duration

3 days



Lean Hospital 101

Although Lean is a top-down strategy, lead by senior leadership, it also requires the involvement and engagement of the entire workforce. A lean initiative cannot be called successful unless a high level of training and participation from the staff is achieved.

Workshop Description

This 1-day workshop is an introduction to lean thinking for the entire hospital staff. Through a combination of classroom training and hands-on exercises, staff members will acquire an initial exposure to the methods and tools that will be used in the on-going lean transformation. This workshop should be considered a core requirement, and a prerequisite for further workshops, kaizen events and lean activities.

Agenda

- What Is Lean, and how does it apply to Hospitals?
- Identifying and Eliminating Waste
- What are flow and pull, and how do they apply?
- Standard Work in a hospital environment
- Introduction to 7S
- Process Improvement, Engagement and Kaizen
- Next steps for involvement in the lean transformation

Who Should Attend

Every member of the hospital staff should attend this workshop, if they are not already participating in the Lean Leadership Workshop. The highest priority must be given to the members of the implementation teams. We recommend:

- Charge Nurses and RNs
- Technologists
- Environmental Services
- Guest Services
- Infection Control
- Performance Excellence
- JCAHO compliance
- Security

Duration

1 day



Lean Material Management in Hospitals

Hospitals often have millions of dollars of materials and supplies on hand. This material is not only a significant consumer of cash, but improper management causes delays in patient flow, drives excess cost and can be a major contributor to inefficiency in patient care.

Workshop Description

The *Lean Material Management in Hospitals* workshop trains participants in the application of world-class supply and Material management methods to the hospital environment. There are a variety of different material control methods, and students will understand the appropriate method to use for all common hospital materials.

Agenda

Participants in the Lean Material Management for Hospitals class will be capable of performing the following tasks:

- Apply the proper lean material management method to hospital supplies and materials
- Understand how to calculate target material quantities, and manage high inventory turnover
- Implement a material pull system, including the setting up of a material supermarket
- Maintain a Kanban system and adjust sizing when required
- Maintain Inventory Record Accuracy in excess of 98%
- Improve and control inventory turnover

Who Should Attend

Participants should include representatives from the hospital material organization, purchasing, Information Technology, production planning and management. We recommend:

- Purchasing
- Information Technology
- Hospital Planning
- Pharmacy
- Charge Nurses and RNs
- Technologists

Duration

2 days



Standard Work for Hospitals

It is a well known fact that one of the best ways to ensure quality outcomes is to standardize process steps. Some professions could not be carried out by humans without standard work documents. If you still have doubts, ask an airline pilot.

Workshop Description

At first glance, patient care does not appear to be a good application of standardization as it seems to make the work rigid and smother creativity. Much to the contrary, there are many processes in a hospital setting that would benefit from establishing standards for all to follow. In this workshop the attendees will learn to identify the best candidates for standardization, as well as some key tools to ensure

Agenda

- Quick refresher on Lean
- What is a standard — Different types of standards and their application
- Standardization and Standard Work — Definitions and uses
- Documenting Standard Work — Tools
- Scouring the work steps — Value-adding work and non-value-adding work
- Graphic Work Instructions — Creation and maintenance
- Ties to FMEA
- JCAHO checklist
- Team Projects
- Team Report-out

Who Should Attend

Every member of the hospital staff should attend this workshop. The highest priority must be given to the members of the implementation teams. We recommend:

- Charge Nurses and RNs
- Technologists
- Environmental Services
- Guest Services
- Infection Control
- Performance Excellence
- JCAHO compliance
- Security

Duration

3 days



Value Stream Mapping

The flow-charting technique of Value Stream Mapping has become a widely-accepted and widely-used method for document a Current State process, indentifying waste and process improvement opportunities, and creating a vision of the future called the Future State Value Stream Map.

Workshop Description

This hands-on workshop has two main objectives: to train your team in the use of the Value Stream Mapping method, and to create Current and Future State Value Stream Maps for your key value streams. Through the process of developing the Future State, participants will also identify waste in the

Agenda

- Training in the Value Stream Mapping method
- Exposure to Value Stream Mapping software
- Creation of the Current State Value Stream Map
- Identification of waste and brainstorming session to improve the value stream
- Creation of the Future State Value Stream Map
- Documentation and inventory of process improvement suggestions, to be incorporated into a Master Plan

Who Should Attend

This workshop should be attended by staff members who are able to contribute to a discussion about the Current and Future State Value Streams within the hospital. This will normally include managers, supervisors and nursing staff. It is also advisable to have some participants from outside of the target area, to provide some outside input.

Duration

3 days



Quick Changeover Kaizen

From a Lean perspective, all changeover activity is *muda*, or waste. While it often cannot be eliminated completely, our goal should be to reduce changeover to a minimum, and various methods have been developed to achieve this. Quick Changeover in a hospital environment would be applicable to operating rooms and patient rooms, as well as any other environment where some preparation for the next patient is needed.

Workshop Description

One of the early challenges for lean practitioners was how to deal with long changeover times from one product (or patient) to another. Out of this effort to improve came a set of techniques and methods that can be applied to any environment, to achieve sometimes radical reductions in changeover times. This Quick Changeover Kaizen combines training and a concrete improvement opportunity into a 4-day rapid improvement event. Participants will not only achieve real-time benefits, but also gain hands-on experience that can be applied to other areas of opportunity.

Agenda

Pre-Event: Assessment and creation of the activity Master Plan

Day 1: Formal changeover training and discussion. Introduction to the Quick Changeover method. Data collection and analysis. Complete process documentation.

Day 2: Apply Quick Changeover techniques to data, and brainstorm process improvement suggestions. Create implementation plan.

Day 3: Implementation, operator training and “line live”

Day 4: Finish up, management presentation and team celebration

Who Should Attend

Participants in the Quick Changeover Kaizen should include members of the target area department that know the current process, a certified Kaizen leader and co-leader, and several team members from outside of the target area department.

Duration

4 days



Team Member Engagement Program

Success, it is said, requires both skill and leverage. The leverage that we achieve in our Lean Hospital initiative will come from the engagement of the entire staff, in the form of many small suggestions for improvement. This involvement won't happen by itself. It will require leadership.

Workshop Description

This workshop is the starting point for an on-going activity of soliciting, receiving, evaluating and implementing process improvement suggestions from the hospital staff. This activity is linked to several other programs in this catalog: the Train The Trainer Certification, and the Hospital Suggestion Database.

Agenda

- Train in the Quick and Easy Kaizen method
- Train in the use of the Hospital Suggestion Database system
- Finalize design of manual suggestion form
- Create suggestion tracking and KPI measurements
- Develop roll-out schedule for staff member training
- Create announcement material for hospital newsletter and website
- Complete certification in the Train The Trainer module for all prospective trainers
- Set up visual status boards for each logical area or department

Who Should Attend

The primary participants in this workshop will be the leaders of the process improvement effort. This will include charge nurses and RNs, performance excellence staff and members of the senior leadership team.

Duration

4 days



Hospital Assessment

The first step in any journey is to acquire a map. This data gathering and mapping activity provides the basis for a plan to guide and track the progress of your Lean Hospital implementation.

Activity Description

This consulting activity has the objective of gathering the necessary information to develop a thorough plan for the adoption of the Lean Hospital at the client site. Through a combination of training, interviews, and data gathering and processing, a team composed of two consultants and several members of the client hospital a picture of the current state is developed. After a brainstorming session a new Future State will emerge and its benefits accounted for.

Agenda

- Meeting with Executive Team
- Meeting with Lean Champion(s). Review and adjust submitted agenda
- Meet the activity participants. Conduct brief interviews.
- Brief introduction to the Lean Hospital
- Brief training session on Value Stream Mapping
- Develop Current state
- Brainstorm opportunities for improvement; document and prioritize
- Develop Future State
- Estimate Financial benefits
- Estimate Qualitative benefits
- Identify All Value Streams, Processes, Champions, and Process Owners
- Identify implementation resources
- Estimate implementation timelines
- Report-out presentation

Deliverables

- Current and Future State Value Stream Maps
- Registry of Improvement Projects
- Time-phased implementation plan
- Estimated Financial Benefits
- Estimated Qualitative Benefits
- Setup of Lean Hospital Dashboard

Duration

5 days, 2 Consultants



Lean Leadership Workshop

The Lean approach to continuous improvement is a bottom-up approach that necessitates Top Management support. The world is littered with companies that implemented very good tools that failed because of lack of management commitment.

Workshop Description

The purpose of this week-long workshop is to train the leadership team on the concepts of Lean in a safe and hands-on environment. A group of 8-to-16 upper-level managers work together for a whole week in teams of 4 learning and implementing the basics concepts of Lean. By the end of the workshop, the leaders are able to understand and guide kaizen events within their departments and across multi-disciplinary teams.

Syllabus

- Day 1—AM: **Training session.** Lean 101 and Kaizen Leader Training. Form teams; identify initial opportunities for improvement; develop PM plans
- Day 1—PM: **Kaizen session.** Teams of 4 conduct initial projects following the Kaizen model. Teams prepare presentation for next AM
- Day 2—AM: Teams report prior day's progress. **Training session.** 7S and visual management; teams remain; identify 7S opportunities for improvement; develop PM plans
- Day 2—PM: **Kaizen session.** Teams conduct 7S projects following the Kaizen model. Teams prepare presentation for next AM
- Day 3—AM: Teams report prior day's progress. **Training session.** Standard Work and Q&E Kaizen; teams remain; identify Standardization opportunities for improvement; develop PM plans
- Day 3—PM: **Kaizen session.** Teams conduct Standardization projects following the Kaizen model. Teams prepare presentation for next AM
- Day 4—AM: Teams report prior day's progress. **Training session.** Value Stream Mapping (VSM)
- Day 4—PM: **Kaizen session.** Whole class develops a Current State VSM. Brainstorming session
- Day 5—AM: **Kaizen session.** Conclude brainstorming session. Develop Future State VSM. Document opportunities for improvement.
- Day 5—PM: Develop and deliver report-out presentation

Who Should Attend

Every member of the hospital leadership team. We recommend:

- Clinical Directors
- Clinical Support Services Directors
- Clinical Managers
- Clinical Support Services Managers
- Administrators and Associate Administrators
- Vice Presidents
- CEO, CNO, CMO, CFO

Duration

5 days



Kaizen Leader Training

A Rapid Improvement or Kaizen event is a significant investment of time and effort, and it is important that the leaders of these events be well-trained in how to prepare for, run, report on and follow-up on improvement activities. This certification is a requirement for Kaizen Team Leaders and Co-Leaders, and is also strongly recommended for Kaizen Event participants.

Workshop Description

This two-day certification workshop is organized around one or more (depending on the number of participants) mini-Kaizen events, areas of improvement that are small enough to be completed with the two-day period. Participants will have the opportunity to go through all of the elements of a Kaizen event, including preparation checklists, assigning roles and responsibilities, running the event, creating a formal presentation, and following up on any remaining action items. Activities include a formal report-out on Day 2 from each team. Participants will need to pass a final exam in order to achieve certification status.

Agenda

- Module I: Roles and Responsibilities
- Workshop I: Selecting Team Leaders and Team Members
- Module II: Preparing for a Kaizen Event
- Workshop II: Selecting the Kaizen Area and Data Collection, Value Stream Mapping, Process Data
- Module III: Running a Kaizen Event
- Workshop III: Brainstorming Improvements and Implementation Plan
- Module IV: The Kaizen Report-Out
- Workshop IV: Implementation
- Module V: Kaizen Event Follow-Up
- Workshop V: Formal Report-Out and Team Celebration

Who Should Attend

Pre-requisite: Participants should be willing and able to lead Kaizen events. They need to have attended either the 5-day Lean Leader Workshop or the 1-day Introduction to Lean workshop so they

Duration

2 days



Value Stream Design

Following the Value Stream approach, we must first design the value stream and supply it with the necessary resources, policies, procedures, structures, and values. After a linked and balanced Value Stream is in place, we focus on the individual processes.

Activity Description

This project will be divided into three main phases, data gathering, flow process design, and flow processes live. During these phases, the hospital team will delve deep into the details of the operation of the selected value streams to identify processes and individual elements of work as well as to develop policies and procedure to ensure the sustainability of the implemented changes.

Agenda

Phase 1: Data Gathering

- Value Stream Mapping. Current and Future state
- Processes, Products/transactions, Process Flow Diagrams, Process Maps
- Standard Work definitions. Resource definitions

Phase 2: Flow Process Design

- Resource calculations. People, Machines, Balancing
- Layouts: Conceptual layout; Final Layout
- Deployment plan. Review feasibility with Facilities, Leadership, Environmental Services
- Regulatory review
- Training plan

Phase 3: Flow Process Live

- Train team members
- Exercise new value stream design. Stress tests
- Sustainability plan. Calculation of realized benefits
- Final Report-out to Leadership team

Deliverables

- Current and Future State Value Stream Maps. Registry of Improvement Projects
- Detailed design of selected value stream
- Training for all employees in value stream and support functions
- Policies and procedures to sustain changes
- Kickoff of Continuous Improvement Meetings
- 7S and Standard work in at least 3 processes in the value stream

Duration

15 days, 1 Consultant



Process Improvement (Kaizen)

Most processes have a substantial amount of non-value added steps of work that cause waste. This waste has a negative financial impact for the hospital as well as potentially detracting from a memorable patient experience.

Activity Description

A continuous process improvement event must be carefully planned and its objectives clearly communicated to all involved. During a kaizen, a team of dedicated employees and outside consultants devote a block of time to improving a process. Solutions are identified, team members are trained, and the ideas are implemented by the end of the project.

Agenda — Typical 5-day Kaizen

Day 1: The Current State

- Training on the Kaizen subject
- Definition of current state—Possible use of Value Stream Mapping, Flowcharting, etc
- Brainstorm opportunities for improvement

Day 2: The Future State

- Identify ideas to implement within the Kaizen event
- Develop the future state, Calculate benefits, Develop deployment plan, Initiate deployment

Day 3: Implementation day

- Physical changes, Train team members in target area
- Start new process

Day 4: Exercise new process

- Observe new process
- Note opportunities for improvement

Day 5: Tweak and Report Progress

- Fine tune new process, Document opportunities and benefits

Deliverables

- Current and Future State Value Stream Maps. Registry of Improvement Projects
- Fully implemented target area
- All team members in target area trained
- New opportunities for improvement documented
- 7S assessment
- Checked with Infection Control and JCAHO

Duration

5 days, 1 Consultant



Train The Trainer Certification

An essential element of the Lean Hospital is a high level of *engagement* of the entire workforce. It follows that every employee needs to be trained in the basics of Lean, and given the tools they need to fulfill this role. This basic training is best done by internal hospital resources.

Workshop Description

The *Train The Trainer* program will train a core group of internal instructors to present core lean subjects. In order to earn a certificate, the instructor candidate will need to demonstrate an understanding of the subject matter, pass a knowledge check quiz, and be able to present the training material professionally. A workbook is provided with instructor notes. Some supplemental study may also be required. It is assumed that the prospective trainers already have a basic knowledge of Lean.

Agenda

The disciplines that will be covered in this 4-day certification program are:

1. Introduction to the Lean Hospital
2. Organization and Housekeeping (7S)
3. Team Member Engagement
4. Value Stream Mapping
5. Problem Solving
6. Error Proofing (Poka Yoke)
7. Finding and Eliminating Waste
8. Standard Work Definition

Who Should Participate

The Train The Trainer Certification Program is open to any staff member who has the desire and ability to become an internal trainer. The candidate should be a graduate of the Lean Leader training workshop, and have participated in at least three Kaizen workshops.

Duration

4 days



Material Management Certification Program

The management of supplies and materials in many hospitals represents a multi-million dollar opportunity for improvement in patient flow and care, working capital, reduction in excessive handling costs and prudent use of valuable space. This program helps get it fixed.

Program Description

The *Lean Material Management Certification Program* is a four-week initiative that will get any hospital on the road to creating and sustaining a world-class Lean Hospital material management process. We train participants in the application of world-class supply and Material management methods to the hospital environment, and then help them do it in a series of Kaizen events. The program results in a formal certification of participants in Lean Hospital Material Management.

Agenda

Over a four week period, participants in the Lean Material Management Deployment Program for Hospitals will complete the following goals:

- Apply the proper lean material management method to hospital supplies and materials
- Understand how to calculate target material quantities, and manage high inventory turnover
- Implement a material pull system, including the setting up of a material supermarket
- Maintain a hospital Kanban system and adjust sizing when required
- Learn how to maintain Inventory Record Accuracy in excess of 98%
- Bring at least ten material supply areas to a high level of maturity, and develop a deployment plan

Who Should Attend

Participants should include representatives from the hospital material organization, purchasing,

- Purchasing
- Information Technology
- Hospital Planning
- Pharmacy
- Charge Nurses and RNs
- Technologists

Duration

4 weeks, spread over a 3 month period



Kaizen Leader Certification

A proven way to sustaining Lean gains is to implement improvement ideas from within, using internal resources. This certification program is designed after tried-and-true methods applied all over the world with great success. The participants of this hands-on learning journey will commit to the program in its entirety and receive a certification as Kaizen leaders.

Activity Description

To be a Kaizen leader, you must know the theory and tools of the Lean Hospital, but as importantly, you must gain practical experience. The participants in this workshop spend classroom time learning specific tools, as well as a substantial amount of time implementing improvement opportunities. The program begins with Kaizen leader candidates working in a safe “simulation” environment, and gradually expanding to forming their own improvement teams.

Curriculum by Module

Module 1: Lean Training and VSM

Basic Lean Training, Value Stream Mapping, Quantitative Analysis
 Assemble teams (4 team members each); Identify target Value Streams/Processes
 Develop VSM/Flowcharts; Identify opportunities for improvement
 Develop deployment plan. Each team will complete one more VSM/Analysis tool before next Module
 Deliverable: 6 mapped value streams

Module 2: Kaizen Leader and 7S

Review VSMs from prior Module
 Kaizen Leader training, 5S training
 Select target areas; Complete business case (Benefits)
 Conduct 5S project; Develop sustainability plan
 Each team will conduct one more 5S project prior to next Module
 Deliverable: 6 areas with full 5S implemented

Module 3: Standard Work

Review and Audit 5S areas from prior Module
 Standard Work training
 Select target areas/processes; Complete business case (Benefits)
 Conduct Standard Work project – Train and bring live; Develop training and sustainability plan
 Each team will conduct one more Standard Work project prior to next Module
 Deliverable: 6 areas/processes with Standard Work documentation implemented



Kaizen Leader Certification (Continued)

(Continued...)

Module 4: Employee Engagement

Review and Audit Std Work projects from prior Module
Quick and Easy Kaizen and Engagement training
Select target areas; Complete business case (Benefits)
Conduct project – Acquire/Document/Prioritize; Develop one-page lessons
Develop Registry and Assignment method
Each team will conduct one more project prior to next Module
Deliverable: A minimum of 24 implemented and documented ideas

Module 5: Changeover (setup) reduction

Review and Audit Engagement projects from prior Module
Setup reduction training
Select target areas/processes/resources; Complete business case (Benefits)
Conduct project – Train and bring live; Develop one-page lessons
Each team will conduct one more project prior to next Module
Deliverable: A minimum of 6 implemented processes

Module 6: Confirmation of Results

Final pre-certification Audit – A minimum of one project per leader per topic
Written Test
Open forum; Certification maintenance; Master certification; Hospital-wide deployment
Final presentation and certification ceremony

Who Should Participate

The target audience is hands-on leaders. RN's, Techs, Clinical and Clinical Support Services Managers are perfect candidates. The recommended class size is a minimum of 12-16. Teams will be split depending on individual team progress.

Duration

This program is designed to take 28 days in 21 weeks. Customization is available.

