Here is a step-by-step procedure for solving quadratic spline interpolation:

1. Determine the data points that need to be interpolated. This includes the x-values and the corresponding y-values.

2. Divide the data points into sets of three consecutive points (xi, yi), (xi+1, yi+1), and (xi+2, yi+2). These sets are known as intervals.

3. For each interval, create a quadratic function that passes through the three points. The quadratic function can be written in the form:

$$f(x) = a(x-xi)^2 + b(x-xi) + c$$

where a, b, and c are unknown coefficients.

4. To find the coefficients, set up a system of equations using the following conditions:

$$a(xi+1-xi)^2 + b(xi+1-xi) + c = yi+1$$

$$a(xi+2-xi)^2 + b(xi+2-xi) + c = yi+2$$

$$2a(xi+1-xi) + b = m$$

where m is the slope at xi+1.

5. Solve the system of equations to find the values of a, b, and c for each interval.

6. Repeat steps 3-5 for each interval to obtain a set of quadratic functions that pass through all of the data points.

7. Finally, use the quadratic functions to interpolate any new values of x that fall within the range of the data points. To do this, simply evaluate the appropriate quadratic function for the given value of x.

Note: It's important to note that quadratic spline interpolation is just one type of spline interpolation. Other types include linear spline interpolation and cubic spline interpolation, which use linear and cubic functions, respectively, instead of quadratic functions.